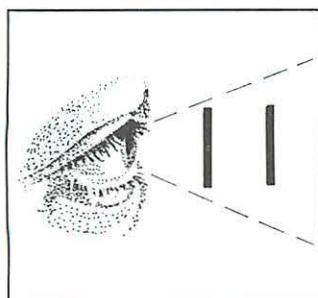




Matthew 7:1-5

"Judge not, that ye be not judged. . . ."



How well do you understand the concept of judging?

True/False

- 1** As brothers and sisters in Christ, we are accountable to one another, and thus, have the responsibility to judge each other. ☐ ☒

(Read James 4:11-12 and Romans 14:4, 10-12.)

- In God's order, judgment flows only vertically, never horizontally: master to servant rather than servant to servant, God to man instead of man to man, king to subject, and so on. Therefore, mutual accountability (as opposed to accountability to our authorities) is based on exhortation, not on judgment. (See Romans 14:13 and Hebrews 3:12-13.)

All judgment belongs to God and must be based on His Word. ☒ ☐

(See Deuteronomy 1:17 and Psalm 50:6.)

- 2** Because God is the Judge of all the earth, anyone who judges usurps His authority. ☐ ☒

(Read Romans 13:1-5.)

- God is the Judge, but He delegates authority to men in order to carry out justice. However, proper guidelines must be followed. Thus, a king is commanded not to touch liquor lest he pervert justice. (See Proverbs 31:4-5.)

A mature Christian should never think in terms of judging. ☐ ☒

(See I Corinthians 6:2-4.)

- 3** Trying to act as another person's conscience is often an indication of a judgmental spirit. ☒ ☐

(Read I Corinthians 10:27-30.)

- The problem with trying to judge another is that we judge according to human standards and outward appearances. (See John 8:15.) God not only sees our actions, but also knows our hearts. Thus, He is the only One qualified to judge us. (See I Corinthians 4:3-4.)

Judging others is often motivated by a desire to cover our own sin. ☒ ☐

(See John 8:3-11.)

- 4** When you judge a person, you cut him off from your life. ☐ ☒

(Read Romans 2:14-16.)

- When a judge passes sentence on a criminal, he banishes that person from his presence to the confinement of a prison cell. Anger accomplishes the same objective with malice and is, therefore, equated with killing. Thus, judging and anger often go hand in hand. Christians are commanded to restore rather than judge those who are overtaken in a fault. (See Galatians 6:1.)

Because we have faults, we should not consider the faults of others. ☐ ☒

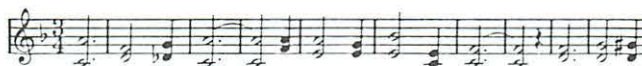
(See Matthew 7:5.)

Total Correct 7

Cleanse Me

J. EDWIN ORR

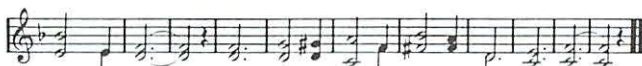
MAORI MELODY



1. Search me, O God, and know my heart to - day; Try me, O
2. I praise Thee, Lord, for cleansing me from sin; Ful-fill Thy
3. Lord, take my life, and make it whol-ly Thine; Fill my poor
4. O Ho - ly Ghost, re - viv - al comes from Thee; Send a re -



Sav - ior, know my thoughts, I pray: See if there be some wicked
Word, and make me pure with-in; Fill me with fire, where once I
heart with Thy great love di - vine; Take all my will, my pas-sion,
viv - al—start the work in me: Thy Word de - clares Thou wilt sup -

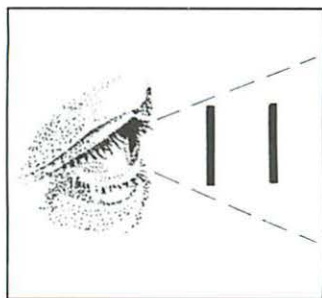


way in me: Cleanse me from ev-'ry sin, and set me free.
burned with shame: Grant my de-sire to mag-ni-fy Thy name.
self and pride; I now sur-ren-der: Lord, in me a - bide.
ply our need: For bless-ing now, O Lord, I hum-bly plead.

WISDOM WORKSHEET ON MATTHEW 7:1-5



"Judge not, that ye be not judged. For with what judgment ye judge, ye shall be judged: and with what measure ye mete, it shall be measured to you again."



"And why beholdest thou the mote that is in thy brother's eye, but considerest not the beam that is in thine own eye? . . . Or how wilt thou say to thy brother, Let me pull out the mote out of thine eye; and, behold, a beam is in thine own eye? Thou hypocrite, first cast out the beam out of thine own eye; and then shalt thou see clearly to cast out the mote out of thy brother's eye."

TWO TYPES OF JUDGMENT

God distinguishes two types of judging: righteous judgment and unrighteous judgment. Unrighteous judgment is always wrong because it is not given in love, nor does it have the ability to restore.

Righteous judgment is more accurately defined as spiritual discernment. It is the act of seeing a fault in another, and because of personal victory in the same area, knowing how to give precise steps for a lasting solution.

The unrighteous judgment toward another which we lay on one side of the scale is equally weighed out to us. This is the scale of justice.

Linguistics

Languages,
Grammar, Vocabulary,
Communication



JUDGE

Greek: κρίνω (KRIH-noe)

DEFINITION: To decide, mentally or judicially; to try, condemn, determine.

Do Resource A.

JUDGMENT

Greek: κρίμα (KRIH-mah)

DEFINITION: A sentence passed upon someone as a result of a crime.

MEASURE

Greek: μέτρον (MEH-tron)

DEFINITION: A graduated rod or rule to measure or determine extent.

SHALL BE MEASURED

Greek: ἀντιμετρέω

(ahn-tih-meh-TREH-oh)

DEFINITION: To give out with like kind and quality.

BEHOLDEST

Greek: βλέπω (BLEH-poe)

DEFINITION: To see.

INSIGHT: Refers primarily to seeing the outside of something. The contrast here is between judging the outside and examining the heart.

Do Resource B.

MOTE

Greek: κάρφος (KAR-foss)

DEFINITION: A small twig or straw.

BEAM

Greek: δοκός (daw-KOSS)

DEFINITION: A stick; a beam.

INSIGHT: A beam and a mote are vastly different in size, but they can appear to be the same size if one is in *your* eye.

PULL

Greek: ἐκβάλλω (eck-BAHL-loe)

DEFINITION: To bring forth; pluck out.

INSIGHT: The purpose is not merely to detect a defect, but to correct it.

SEE CLEARLY

Greek: διαβλέπω (dee-ah-BLEH-poe)

DEFINITION: To look through, i.e., recover full vision; to see clearly.

History

Archaeology,
Geography, Prophecy,
Music, Art, Literature



How did a "baseball evangelist" hit a million "home runs" for God but "strike out" with his own children?

Billy Sunday was a professional baseball player who became a famous evangelist. One hundred million people came to hear this fiery evangelist, and over a million were converted.

Mr. and Mrs. Sunday often left their four children with others so they could travel together. In his preaching Billy tirelessly attacked drinking and was relentless in his judgment of those who dealt with alcohol. Yet, when his



Billy Sunday: The Man and His Message
Billy Sunday
1862-1935

firstborn son grew up, alcohol ruined his marriage, and one night at a wild party he jumped to his death from a seventh-story window.

Their youngest son was also a heavy drinker. After a party he crashed his car into a utility pole and was killed.

Billy and Ma Sunday will have tremendous spiritual fruit in Heaven, but because they neglected their children, they are judged by history with the same condemnation they gave to drunkards who neglected their families.

How has focusing on the mote in the eye of another nation kept us from seeing the beam in our own?

History records the awesome events which led to the downfall of a prosperous, self-sufficient nation. The facts in this account are shockingly similar to what is taking place in our nation today.

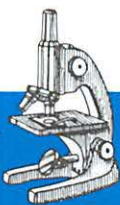


The Opium War

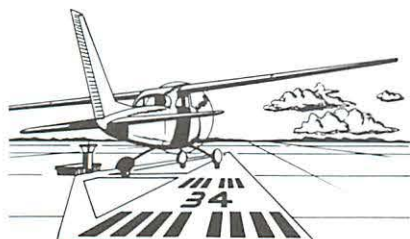
Do Resource C.

Science

Chemistry, Biology,
Astronomy, Geology,
Physics, Mathematics



How does a pilot jeopardize his life by judging according to his senses?

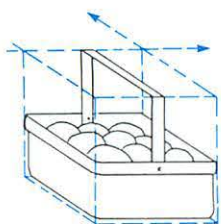


Pilots have a constant temptation to trust their senses rather than rely on their instruments. This tendency has resulted in many deaths.

When visibility is poor, a pilot may feel as though he is spinning when he is actually in a stable position. A pilot may also feel that he is upside down when he is actually right-side up. By attempting to "climb," he crashes his plane into the ground.

Do Resource D.

How do the principles of perspective drawing relate to judging?



Perspective drawing

In order to draw an object accurately, we must follow the principles of perspective. Even the slightest deviation will produce distortion and wrong dimensions in the finished product.

The dimensions of the object will be determined by our position and a point on the horizon. Because of these laws it is very obvious why it is essential for us to see things from God's perspective if we are to make accurate spiritual judgments.

Do Resource E.

Law

Government,
Economics, Logic



How did unrighteous judgment cause a city to be judged?

During the 1600s the horrors of witchcraft caused such alarm in Europe that hundreds of suspected witches were tried and executed.

In 1692 similar trials were conducted in Salem, Massachusetts. Scripture rightfully calls for the death penalty for witches, because the practice of witchcraft involves human sacrifice. (See Leviticus 20:27.)

Scripture also requires that diligent inquiry and thorough cross-examination be made for anyone accused of a crime and specifies how an offender is to be put to death.

Hearsay evidence and rumors were used to condemn suspected witches in the Salem trials, and the executions were carried out with vengeance and brutality. Consequently, Christian leaders such as Cotton Mather urged Governor William Phips to end the trials after nineteen accused witches had been executed.



Cotton Mather
1663-1728

Ironically, history has judged the proceedings as a blot to the name of the city of Salem.

How does tort abuse demonstrate the consequences of judging others?

Today, a man who is injured by the careless use of a ladder considers how to sue the manufacturer. Consequently, the price of every ladder is now 33 percent higher in order to pay for the company's liability insurance.



Do Resource F.

Medicine

Health,
Nutrition, Behavior,
Counseling



How does a wrong diagnosis result from violating principles of judgment?

God requires that a diagnosis follow careful observation of symptoms. (See Leviticus 13.) Today, however, doctors are trained to make judgments based on probabilities as much as on symptoms.



Erving Gellman

Medical misjudgment is causing an explosion of radical, harmful, and exorbitantly expensive treatments.

We must now learn a new set of skills in order to be S.A.F.E.

S-STRATEGY: Research your symptoms. Keep records of questions and answers. Summarize your findings for your doctor.

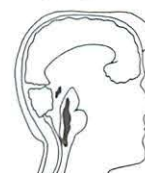
A-ANALYSIS: Weigh your doctor's counsel. Ask for evidence for conclusions. Ask to see testimonies of those helped by similar treatment. Know how the doctor's presuppositions are affecting his counsel.

F-FINANCES: Exorbitant cost is often a clue to unproven, experimental medicine. Be persistent in asking for proven treatments.

E-EVALUATION: Health is an everyday matter. Removing symptoms does not always remove the cause. Be open to change.

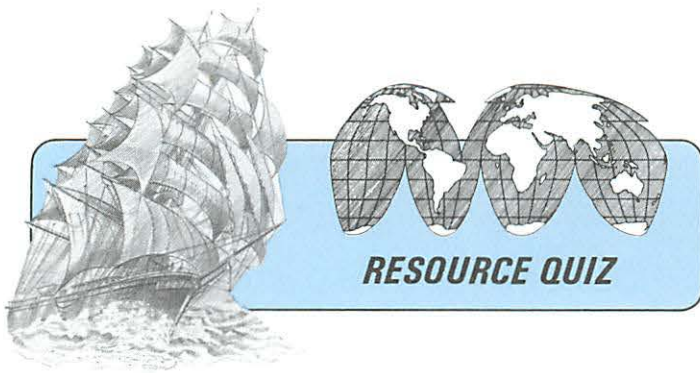
How does the reticular activating system require righteous judgments?

At the base of the brain is a network of cells called the reticular activating system. When a judgment is made, the R. A. S. "looks" for verification of a correct decision. A false judgment causes misinterpretation of facts.



The reticular activating system

Do Resource G.



How many of these questions can you answer before studying the resources?

HOW SHOULD JUDGING BE JUDGED?



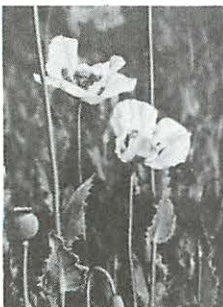
- What is the basic word God uses for “judging”? 2368
- How can judging be used to love others? 2368
- What kind of judging establishes “innocence until proven guilty”? 2369
- How does an umpire illustrate judging? 2370

HOW DOES JUDGING MIRROR OUR FAULTS?



- What are four steps to unrighteous judging? 2371
- How does guilt motivate us to judge others? 2372
- How does rationalization cause a person to explain away sin? 2373
- How does imputation relate to judging? 2375
- How does judging others reveal our faults? 2376

WHAT FLOWER IS JUDGING NATIONS?



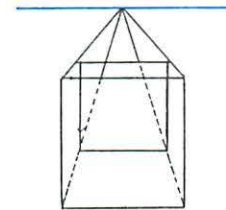
- How do conditions in America today parallel those of an Asian country in the 19th century? 2377
- How did Britain use trade to destroy that nation? 2379
- How does the history of a colony relate to judging? 2383
- How did the unrighteous judgment of Britain pave the way for Communism to take over that country? 2385

HOW CAN JUDGING BE FATAL?



- How is a pilot judged by his own judgment? 2387
- How can the judgment of a turn coordinator avoid a “graveyard spin”? 2389
- How can a pilot judge the nearness of danger? 2390
- Why is a pilot unable to judge airspeed by looking out the window? 2391
- How does a pilot judge the attitudes of a plane? 2393

HOW DOES JUDGING RELATE TO ART?



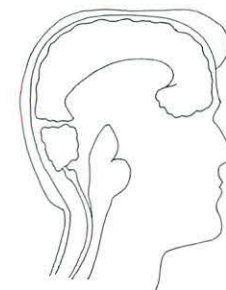
- How does the principle of diminution make the mote and the beam the same size? 2397
- How can a hand judge the size of a man? 2398
- How does the principle of convergence provide good judgment? 2399
- How does field of vision relate to judging? 2399

HOW DO LAWSUITS INCREASE JUDGING?



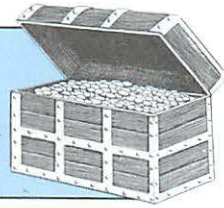
- How have court rulings undermined common law? 2403
- What is a tort? 2403
- How did an accident victim use tort to sue a car salesman? 2406
- How do “deep pockets” in court empty pockets? 2408
- How does tort abuse encourage irresponsibility? 2411

HOW DOES THE BRAIN JUDGE?



- How does the brain turn itself “on” and “off”? 2417
- How does the brain recognize significant data? 2418
- How does the reticular activating system cause us to judge others? 2419
- How does the mind respond to boredom? 2420
- Why is it hard for the brain to correct wrong judgments? 2421

INSIGHTS THROUGH INVESTIGATION



HOW CAN WE AVOID JUDGMENT BY JUDGING STATEMENTS IN SCRIPTURE ABOUT JUDGING?



In this courtroom there is a judge, a cross-examiner, a court reporter, and a witness. How do all these relate to the verse **"Judge not, that ye be not judged"** (Matthew 7:1)?

Scripture contains seemingly contradictory statements as to whether or not we should judge. Five pairs of these apparent contradictions are listed below. As you read these statements, see if you can discern what God is really saying to us through them.

- 1 • **"Judge not according to the appearance . . ."** (John 7:24).
- **" . . . But judge righteous judgment"** (John 7:24).
- 2 • **"Judge not, that ye be not judged"** (Matthew 7:1).
- **"And this I pray, that your love may abound yet more and more in knowledge and in all judgment"** (Philippians 1:9).
- 3 • **"There is one lawgiver, who is able to save and to destroy: who art thou that judgest another?"** (James 4:12).
- **"But he that is spiritual judgeth all things, yet he himself is judged of no man"** (I Corinthians 2:15).

- 4 • **"Therefore thou art inexcusable, O man, whosoever thou art that judgest: for wherein thou judgest another, thou condemnest thyself; for thou that judgest doest the same things"** (Romans 2:1).
- **" . . . Be perfectly joined together in the same mind and in the same judgment"** (I Corinthians 1:10).
- 5 • **" . . . Judge nothing before the time, until the Lord come, who both will bring to light the hidden things of darkness, and will make manifest the counsels of the hearts: and then shall every man have praise of God"** (I Corinthians 4:5).
- **"For if we would judge ourselves, we should not be judged"** (I Corinthians 11:31).

Based on the instruction of these verses, how would you answer the following situations?

Situation A

On the way home from church one member of a family commented, "Based on the man they appointed to teach our class, it would appear that our church has some serious spiritual needs. He has major problems in his marriage; his children have rebelled; and his dress and hairstyle offend many in our church."

Was this judgment: ☐ Righteous? ☐ Unrighteous?

Situation B

A teacher in a Christian school was discussing a new theology textbook with his class. When he came to one particular chapter, he said, "I have done quite a bit of study on this subject, and I disagree with the author on the points he has made."

Was this judgment: ☐ Righteous? ☐ Unrighteous?

Situation C

An employer realized that one of his employees was costing the company quite a bit of money through errors. He called him to his office and said, "I've observed that you're making quite a number of errors in your work. Could you tell me why this is happening?"

Was this judgment: ☐ Righteous? ☐ Unrighteous?

Situation D

A pastor asked a college student for a report on the spiritual life of another church member who was attending the same college. The student replied, "I haven't seen much of him, but he doesn't seem to be very interested in spiritual things. He has dropped out of our fellowship group and spends quite a bit of time with friends who I do not think are helping him spiritually."

Was this judgment: ☐ Righteous? ☐ Unrighteous?

In order to understand the difference between righteous judgment and unrighteous judgment, we must examine the five Greek words which are all translated by the one English word *judge*.

1 κρίνω *krino* [Strong's 2919]

John 7:24

μὴ κρίνετε κατ' ὄψιν, ἀλλὰ τὴν δικαίαν
Not judge according to sight, but righteous

κρίσιν κρίνατε.
judgment judge.

κρίνω (KRIH-noe) is the primary word to be understood in the matter of judging. κρίνω can be carried out righteously or unrighteously depending on what methods are used along with it. κρίνω means "to mentally or judicially condemn; to pass judgment, to conclude, to decide, to determine; to sentence." κρίνω requires, first of all, proper jurisdiction. If God has not given us the jurisdiction over a person but we see faults in him, it is our responsibility to notify those who *do* have the jurisdiction over this person so proper judgment can be carried out.

κρίνω also implies a due process of thorough investigation, clear documentation, careful cross-examination, and wise appeal.

Inherent in this due process is the motivation to bring an offender to see the error of his way, to help him repent of what he has done, and to restore him to fellowship with God and with those whom he has wronged. When all these elements are present, righteous judgment takes place. When any of these elements is missing, unrighteous judgment occurs.



Righteous κρίνω requires thorough, objective, and impartial consideration before a decision is rendered. These essential qualities are embodied in the symbol of justice being blindfolded with an even balance.

The following Greek words amplify or modify various aspects of κρίνω.

2 αἰσθησις *aisthesis* [Strong's 144]

Philippians 1:9

καὶ τοῦτο προσεύχομαι, ἵνα ἡ ἀγάπη ὑμῶν
And this I pray, that love your
ἔτι μᾶλλον καὶ μᾶλλον περισσεύῃ ἐν
yet more and more may abound in
ἐπιγνώσει καὶ πάσῃ αἰσθήσει,
knowledge and all intelligence [judgment],

αἰσθησις (ICE-thay-sis) means "perception, through both the senses and the intellect; moral discernment; the understanding of ethical matters; evaluation."

When we have made strong commitments to the Lord, we will then begin to discern weak areas in others. This type of judgment (αἰσθησις) is not wrong. However, it must be kept within the boundaries of love. "And this I pray, that your love may abound yet more and more in knowledge and in all judgment [αἰσθησις]" (Philippians 1:9).

Love desires that a person who is doing something wrong be corrected so he does not damage his own life or the lives of others. αἰσθησις limits judgment to the right motives and the right methods.

The motives of αἴσθησις are to stop a person from damaging himself or others. The methods must be carried out according to the requirements of righteous κρίνω.



Washington Post, Ken Fed

Judgment, like water, is to be contained within proper boundaries. When properly confined, it brings life and health. When it spills over God-given boundaries, it brings destruction and death.

The goal of αἴσθησις (judging) is building up and edifying a person in God's holiness rather than simply exposing and κρίνω (condemning) a person for his failures.

3 ἀνακρίνω *anakrino* [Strong's 350]

I Corinthians 2:15

ὁ δὲ πνευματικὸς ἀνακρίνει μὲν
but the spiritual discerns
πάντα, αὐτὸς δὲ ὑπ' οὐδενός
all things, but he by no one
ἀνακρίνεται.
is discerned.

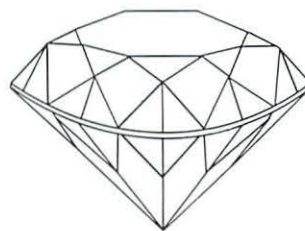
ἀνακρίνω (ah-nah-KRIH-noe) is a compound word. The prefix ἀνά means "repetition; intensity; reversal." It denotes motion from the unknown to the known. As we have seen, κρίνω means "to decide or determine; to mentally or judicially condemn."

When the two words are put together, ἀνακρίνω means "to ask questions; to examine; to evaluate; to scrutinize; to investigate; to search out; to make known that which is hidden."

The objective judgment of ἀνακρίνω is what the Bereans carried out when they "... received the word with all readiness of mind, and **sought** [ἀνακρίνω] the scriptures daily, whether those things were so" (Acts 17:11).

The righteous judgment emphasized by ἀνακρίνω was also demonstrated when the Romans tried Paul. "... When they had **examined** [ἀνακρίνω] me, [the Romans] would have let me go, because there was no cause of death in me" (Acts 28:18).

Justice requires that before a person can be found guilty, there must be objective factual evidence established against that person. It is on the basis of ἀνακρίνω that American law has judged a man innocent until proven guilty.



When a diamond is examined for flaws, every facet must be scrutinized under magnification. In some cases, only one facet will reveal the flaw. This is the picture communicated by the word ἀνακρίνω.

The goal of ἀνακρίνω is to examine thoroughly any charge against another in order to establish truth, whereas unrighteous κρίνω draws a premature conclusion and cuts off the one being judged.

4 γνώμη *gnoma* [Strong's 1106]

I Corinthians 1:10

... ἵνα τὸ αὐτὸ λέγητε πάντες,
... that the same thing ye say all,
καὶ μὴ ἢ ἐν ὑμῖν σχίσματα,
and no there be among you divisions;
ἥτε δὲ κατηρτισμένοι ἐν τῷ αὐτῷ νοί
but ye be knit together in the same mind
καὶ ἐν τῇ αὐτῇ γνώμῃ.
and in the same judgment.

γνώμη (GNOE-may) is judgment which comes through mutual intentions, purposes, and resolutions which have been derived through the counsel and the advice of others.

The unified judgment described by γνώμη is clearly illustrated in I Corinthians 1:10: "Now I beseech you, brethren, by the name of our Lord Jesus Christ, that ye **all speak the same thing**, and that there be **no divisions** among you; but that ye be **perfectly joined together in the same mind** and in the **same judgment** [γνώμη]."

Justice requires "... that in the mouth of two or three witnesses every word may be established" (Matthew 18:16). The judgment of γνώμη is achieved after people of varied perspectives (spiritual gift, age, gender, and experience) arrive at unity.



In a sports event, the umpire has the authority to judge close calls. In the Christian life, the peace of Christ is the "umpire" to carry out the same kind of judgment. "And let the peace of God rule [umpire] in your hearts, to the which also ye are called in one body. ..." (Colossians 3:15).

The goal of γνώμη is a unified decision which can be objectively verified through peace with others. Unrighteous κρίνω makes independent decisions which create conflict.

5 διακρίνω *diakrino* [Strong's 1252]

I Corinthians 11:31

εἰ γὰρ ἑαυτοὺς **διακρίνομεν**, οὐκ ἂν
If for ourselves we scrutinized, not should

ἐκρινόμεθα
we be judged.

διακρίνω (dee-ah-KRIH-noe) means "to separate thoroughly; to make a distinction; to determine; to be at variance with oneself; to doubt." It indicates that we are not to be sure of a conclusion until it is tested.

It is interesting to note that Paul chose the word διακρίνω to describe the self-examination process which is to take place before Communion.

"For he that eateth and drinketh unworthily, eateth and drinketh damnation to himself, not discerning [διακρίνω] the Lord's body" (I Corinthians 11:29).



Communion is a time for διακρίνω. If we continually judge (διακρίνω) ourselves each time we take Communion, we will not be judged (κρίνω). (See I Corinthians 11:31.)

The goal of διακρίνω is to examine ourselves objectively and continually. The goal of unrighteous κρίνω is to pull out the mote from the eye of another before taking the beam out of one's own eye.

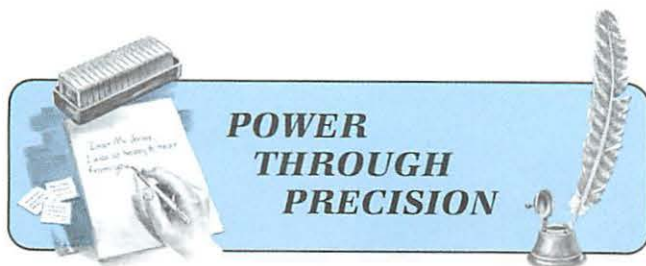
PROJECT

Using the Greek words for "judging" which you have just examined, discuss the four illustrations at the beginning of this Resource. Example: In Situation A, if the family member was investigating the spiritual needs of the church, he would be using ἀνακρίνω. However, if he was concluding that there were spiritual needs without taking proper steps to resolve them, he would be guilty of unrighteous κρίνω.

If the family member in Situation A drew his conclusion about the teacher solely from the teacher's appearance, he was engaging in unrighteous κρίνω.

Assuming that there was a problem in the church and in the life of the teacher, review the five words for "righteous judging," and determine what steps of action should be used to deal with the problems. Follow the same procedure with the other three situations.

Date completed _____ Evaluation _____



HOW TO TURN A DESIRE TO JUDGE OTHERS INTO A MIRROR TO SEE OUR OWN FAULTS



Esther Bubley's World of Children in Photographs

Anger is one of the results of judging another person. Therefore, we should use anger as a mirror to reveal our own faults.

When we judge another person, we reveal the motives and faults of our own hearts and lives. This fact is clearly stated in the following passage of Scripture:

“Therefore thou art inexcusable, O man, whosoever thou art that judgest: for wherein thou judgest another, thou condemnest thyself; for thou that judgest doest the same things” (Romans 2:1–2).

A person who judges another for being deceitful would probably not think of himself as being guilty of “the same thing.” Neither would a person ordinarily think that he is proud if he

judges someone else for pride. However, as we understand the pattern that causes us to judge others, we will discover our own faults.

Four phases of judging:

- 1 Disapprobation**
- 2 Rationalization**
- 3 Imputation**
- 4 Condemnation**

Whenever we violate a commandment of God, the Law which God wrote in our hearts is activated and we experience the **disapprobation** of guilt.

Our response is usually **rationalization**. We change words that sound like sin to other words which excuse weaknesses.

Having justified our own actions, our aroused consciences cause us to notice similar actions in others, and we **impute** the things we have done to them.

The pent-up censure we feel toward our own actions is now directed at the other person in the form of sharp **condemnation**.

1 Recognize the guilt of DISAPPROBATION.

The central factor of all judging is the conscience of a person. It is in the conscience that standards of behavior are recognized. These moral standards are either affirmed and obeyed or rejected and changed.

The conscience is a function of the spirit and contains the basic precepts of God’s Law. Romans 2:14–15 explains how the Law functions within the conscience:

“For when the Gentiles, which have not the law, do by nature the things contained in the law, these, having not the law, are a law unto themselves: Which shew the work of the law written in their hearts, their conscience also bearing witness, and their thoughts the mean while accusing or else excusing one another.”

It is in the conscience that we experience **disapprobation** of our words, thoughts, attitudes, actions, and motives.

What is disapprobation?

Disapprobation results when God's Spirit confirms with our spirits that something is wrong. The word *approbation* means "to sanction or authorize." It comes from the Latin *approbare*, which means "to approve." Approbation is official praise or commendation. Disapprobation is the act of a person's spirit (along with God's Spirit) which condemns something that is wrong whether the act is expressed or not. Thus, disapprobation defines the work of the conscience.

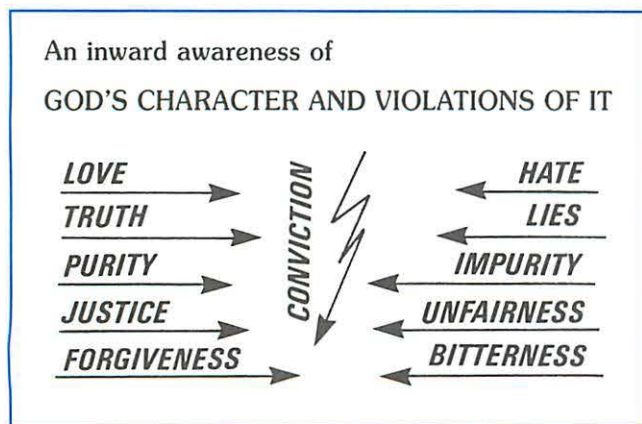
Disapprobation was experienced by various Christians in the early Church over the matter of meat which had been offered to idols. Some Christians felt they could eat the meat. Other Christians were convicted in their consciences that it was wrong to eat this meat.

God defined the function and importance of disapprobation in Romans 14:22–23: "... Happy is he that condemneth not himself in that thing which he alloweth. And he that doubteth is damned if he eat, because he eateth not of faith: for whatsoever is not of faith is sin."

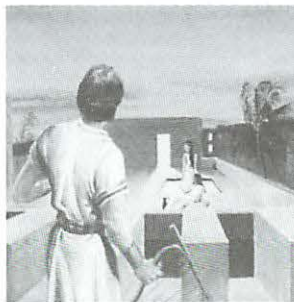
How does the conscience work?

Whenever we violate the Law of God which He has written in our hearts, there is an immediate awareness in our consciences that we have done something wrong.

Even an unbeliever has a sense of right and wrong; however, when the Holy Spirit enters a person's spirit at salvation, He strengthens his conscience and that person has a heightened sensitivity to things that grieve the Lord.



The Conscience



Evidences of disapprobation when David sinned with Bathsheba:

Only five verses were used by God to describe the tragic failure of David when he committed adultery with Bathsheba. (See II Samuel 11:1–5.) We can be sure that David's conscience was crying out for him to avoid this disastrous sin.

The account gives no indication of these thoughts. Once the transgression was committed, however, the following symptoms became obvious.

• Designing a cover-up

When we do something that violates our consciences, we immediately want to cover it over so no one else finds out about it.

"For every one that doeth evil hateth the light, neither cometh to the light, lest his deeds should be reproved" (John 3:20).

• Demonstrating harshness toward others

Imagine how David's conscience must have convicted him as he faced Uriah after secretly committing adultery with his wife. Rather than humbling himself and confessing his sin, the Scripture says that David "demanded" of Uriah a report from the battle.

David's abruptness and harshness must have seemed a little unusual to Uriah.

• Bending established rules

When David told Uriah to go home to be with his wife, Uriah knew that not only would it be inappropriate for a soldier on active duty, but it would also violate God's Law.

Deuteronomy 23:10 gave clear instruction to the nation of Israel as to how soldiers were to keep themselves from being unclean, and thus, unqualified for battle.

David knew of this requirement; he referred to it in his conversation with the priest when he was fleeing from Saul. (See I Samuel 21:4–5.)

- **Persisting in a wrong direction**

David must have admired Uriah's loyalty. Yet, the king was motivated by his immorality to try to break down Uriah's standards. Therefore, David caused Uriah to become drunk, hoping he would go home to his wife so it would appear that the child who was to be born was conceived that night by Uriah. Hence, David's sin would not be discovered.

Arguing over doctrine is another expression of this symptom of disapprobation. If a person reacts negatively to a warning about a particular sin and its consequences, he may be revealing that he is already experiencing failure in that area. When he is argumentative after the second warning, we should end the discussion, because we can be sure that he has a moral twist in his life and that he knows it. (See Titus 3:10–11.)

- **Experiencing physical symptoms of guilt**

During this time of disapprobation, David experienced many physical symptoms of guilt. He described some of these in Psalm 32:3–4: *"When I kept silence, my bones waxed old through my roaring all the day long. For day and night thy hand was heavy upon me: my moisture is turned into the drought of summer."*

2 **Reject the impulse of RATIONALIZATION.**

Our fallen human minds have the capability of **rationalizing** away every single sin. This is a shocking reality.

Rationalizing evil is done with such practiced skill and ease that we soon carry it out instinctively whenever we sense guilt and disapprobation.

What is rationalization?

Rational comes from the Latin root *ratio*, which means "reason." To **rationalize** is to use our minds to justify, make excuses for, or explain away things which we know are wrong. To rationalize is to make allowances for our own failures or to gloss over them.

Because of the danger of rationalization, God warns us not to trust our own reasoning. *"There is a way which seemeth right unto a man, but the end thereof are the ways of death"* (Proverbs 14:12). *"All the ways of a man are clean in his own eyes; but the Lord weigheth the spirits"* (Proverbs 16:2).

How does rationalization work?

The purpose of rationalization is to make us comfortable with guilt. **Guilt is to the spiritual system what pain is to the physical system.** When we experience pain, we should recognize that something is wrong and action needs to be taken. To quench God-given guilt would be to sear our consciences and also to grieve the Holy Spirit, as it is *He Who* brings the guilt of disapprobation.

We tend to rationalize by first minimizing the seriousness of a sin or offense. Minimizing sin is reinforced when we compare ourselves with others rather than comparing ourselves with a holy God.

The next way we rationalize is to change the God-given names for sin to more "socially acceptable" terms. We tell ourselves that we didn't display anger; we only demonstrated firmness. We didn't lie; we only stretched the truth, or at worst, told a "little white lie." We are not unforgiving; we are just trying to make sure the person has learned his lesson.

We call a drunkard "an alcoholic," a rebellious child "hyperactive," and a fornicator "one who is sexually active." Drug addicts are now simply "chemically dependent," and criminals are "socially disadvantaged" or "victims of society."



Evidences of rationalization when David sinned with Bathsheba:

- **Violating God's laws to protect personal reputation**

When David's first attempt to cover his sin failed, he then decided the only way to protect his reputation was to eliminate Bathsheba's husband. He concocted a way to do this by making it appear that Uriah had been killed in the normal course of battle.

In David's thinking, protecting his own reputation was now more important than committing murder. He also determined that he would not call it murder—it would simply be a “battle casualty.”

- **Using others to fulfill hidden agendas**

David wrote to Joab, the commander of the army of Israel. In the letter David instructed Joab to put Bathsheba's husband in the most furious part of the battle and then to withdraw the support troops from him so he would be killed.

Joab carried out this evil command. However, it was not as clean an execution as David hoped it would be. Several other courageous soldiers died in the process. Joab knew that this would displease David, so he coached the messenger on the precise words to use in presenting the report.

- **Glossing over sin with inaccurate analogies**

David felt guilty about killing Uriah, and he assumed that Joab did also. Therefore, he told the messenger to comfort Joab with the following words: “. . . *Let not this thing [murdering Uriah and several other loyal soldiers] displease thee, for the sword devoureth one as well as another . . .*” (II Samuel 11:25).

- **Living as though nothing had happened**

After Uriah was murdered, David married Bathsheba, and she gave birth to David's child. From all outward appearances things were normal. People must have assumed that David was a righteous man and had maintained moral purity with Bathsheba.

God waited over nine months for David to repent of what he had done. However, David continued to live as though nothing had happened.

- **Allowing God's enemies to blaspheme His name**

People of the world seem to have a special ability to detect hypocrisy in Christians. Thus, when those who claim to know God live a lie, unbelievers who already feel disapprobation for their sins rightfully condemn Christians for preaching one thing and living another.

Nathan said to David, “. . . *By this deed thou hast given great occasion to the enemies of the Lord to blaspheme . . .*” (II Samuel 12:14).

3 Realize the motives behind IMPUTATION.

Even though we try to rationalize away our sin, the inward sense of disapprobation continues to eat away at our consciences. The painful awareness of our own failures then causes us to be alert to the same failures in those around us. In fact, we begin looking for similar faults so we can further rationalize our sin on the basis that “everyone is doing it.”

~~The conscious or unconscious search for others with the same faults is the process of imputation.~~

What is imputation?

λογίζομαι (law-GIH-dzaw-my) is the Greek word for “imputation.” It is the root for λογισμός (law-giss-MOSS), which is used in II Corinthians 10:5 and translated *imaginations*: “*Casting down imaginations, and every high thing that exalteth itself against the knowledge of God, and bringing into captivity every thought to the obedience of Christ.*”

The Hebrew word for “imputation” is כַּשָּׁב (kaw-SHAB) and denotes weaving together a conclusion that is usually negative and attributing it to another person whom we are about to judge. The word also gives the idea of plaiting, or braiding, the hair.

~~Imputation is ascribing to another person the conclusions we have drawn. It is attributing wickedness or merit to a person, assigning to someone that which does not belong to him.~~

How does imputation work?

When we impute something to another person, we literally “weave” together what we imagine to be true about him and his character. This imputation may be invented or fabricated with no real evidence of wrongdoing on the part of the one who is about to be judged.

Scripture uses the word *impute* both positively and negatively in relationship to God's work within His people. “. . . *Abraham believed God, and it was imputed unto him for righteousness: and he was called the Friend of God*” (James 2:23). The imputation of righteousness was not deserved by Abraham, but God assigned it to his account because of his belief.

On the other hand, God demonstrates mercy by not imputing sin to the accounts of those who trust Him. (See Romans 4:8.)



Evidences of imputation as a result of David's sin:

When a person fails to deal with the disapprobation of guilt and instead rationalizes sin, he loses objectivity with regard to the failures of others. This condition was certainly experienced by David.

• Arriving at premature conclusions

When Nathan gave David the account of a rich man taking a poor man's lamb, David arrived at a conclusion based only on what he heard. David did not cross-examine the accused man in order to get a fuller picture. If there had been significant factors which had a bearing on the case, he would not have learned about them until after he made his decision.

Scripture states, "... The honour of kings is to search out a matter" (Proverbs 25:2) and "He that answereth a matter before he heareth it, it is folly and shame unto him" (Proverbs 18:13).

• Becoming angry with the sin of another

When David heard how the rich man killed the poor man's lamb, "... David's anger was greatly kindled against the man..." (II Samuel 12:5). Rather than thinking clearly as an arbitrator, David lost his objectivity and became highly emotional. His anger gives clear evidence that he was guilty of the same sin.

• Being too harsh or too lenient

When David heard about the rich man who had taken his neighbor's lamb, David became angry, condemned the man to death (which was not according to God's Law), and then added the Biblical judgment of restoring fourfold what he had taken. This punishment was too harsh.

Later, when David's oldest son Amnon morally defiled his half-sister Tamar, it was David's responsibility as Amnon's father and as his king to bring swift Scriptural judgment upon him. Instead, David simply became angry and failed to take any steps of discipline at all: "But when king David heard of all these things, he was very wroth" (II Samuel 13:21). Thus, in this case, he was too lenient.

• Assigning motives to actions

David justified his harsh penalty for the rich man based on the assumption that the rich man "... had no pity" (II Samuel 12:6). It could have been that the rich man had a very different motive, such as legitimately collecting a debt owed him by the poor man. David would have known this only by talking directly to the rich man before judgment was given.

Fortunately, the sentence David gave for himself was commuted by God because He saw David's repentant heart.

4 Rethink the implications of CONDEMNATION.

Once we impute guilt to another, the buildup of disapprobation and rationalization is directed toward that person in the form of **condemnation**.

At this point judgment can become a mirror to reveal our faults, because God makes it clear that when we judge someone else, we are guilty of doing the very same thing. (See Romans 2:1.)

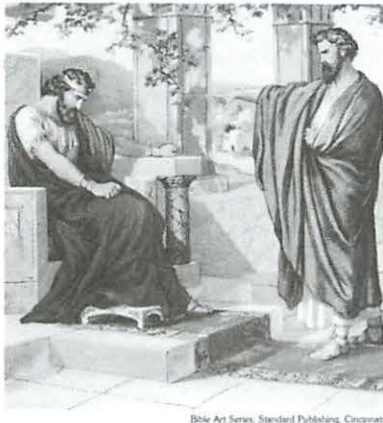
In the process of judging, we show no mercy to an offender. Therefore, the harsh sentence we assign is turned back upon us, making the warning of Scripture very appropriate: "For with what judgment ye judge, ye shall be judged: and with what measure ye mete, it shall be measured to you again" (Matthew 7:2).

What is condemnation?

The word *condemn* comes from two Latin words, *con*, which means "thoroughly," and *damnare*, which means "to punish."

The Greek word for "condemn" is κατακρίνω (kah-tah-KRIH-noe). It comes from the root word κρίνω (KRIH-noe), which means "to judge."

To condemn is to punish, to avenge, to sentence, to cut someone off.



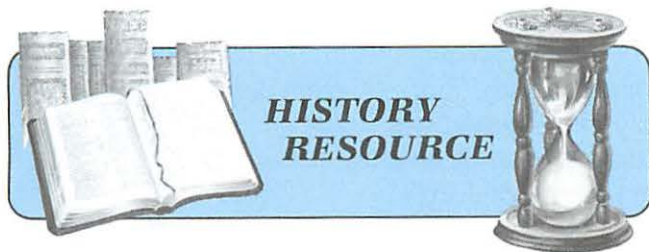
How does the very act of judging reveal that we have the same faults?

PROJECT

Begin to learn how to use judging as a mirror by discovering how the very act of judging causes you to do the same thing that you condemn in another. Then think of one person in your church whom you have been judging, and see how you have been guilty of the very same thing although you may have expressed it in a different way.

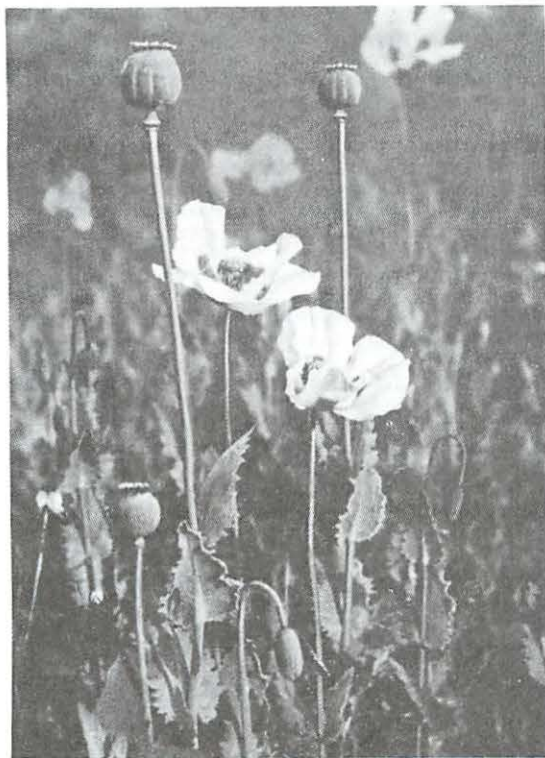
THE ACTIONS WE JUDGE IN OTHERS	THE ROOT CAUSES OF THE ACTIONS WE JUDGE	HOW THE ACT OF JUDGING IS A MIRROR, REVEALING THE SAME SIN IN US
STEALING	Assuming the right to things which do not belong to us and taking them for ourselves	When we judge, we take from God authority which does not belong to us and the good name of the one we condemn.
PRIDE	Thinking more highly of ourselves than we ought and exalting ourselves above others	When we judge, we elevate ourselves above all others to the place of God, because He alone has the authority to judge.
REBELLION	Rejecting limitations and authorities which God has placed over our lives	When we judge, we go beyond the limits God set for us, and we usurp His position of authority in our lives.
DISLOYALTY	Breaking a trust others have placed in us	When we judge, we break the trust God placed in us to lay down our lives for the brethren.
GOSSIP	Sharing detrimental information with those who are not part of the problem or the solution	When we judge a person to be a gossip, we are sharing detrimental information with those who are not part of the problem or part of the solution.
LYING	Causing others to believe that which is not true	When we judge another, we cause other people to either misjudge the Christian life or misjudge God's ability to work in the life of a Christian.
UNGRATEFULNESS	Believing that I achieved what, in reality, God and others have done for me	When we judge, we forget that if God gave us what we truly deserved we would be destroyed every day.

Date Completed _____ Evaluation _____



HISTORY RESOURCE

HOW DOES FOCUSING ON A MOTE IN ANOTHER NATION'S EYE KEEP US FROM SEEING A BEAM IN OUR OWN?



Handbuch Des Arnen Und Gewurzflorstenheues, E. F. Hergert

The difference between a mote and a beam is a matter of perspective. These colorful flowers appear to be quite lovely until the viewer realizes they have caused the destruction of millions of human lives and the downfall of more than one nation. These flowers are opium poppies.

It was a beautiful city, located on the southern seacoast of a large and prosperous nation. The city was an important commercial center because of the volume of international trade that flowed through it, but all was not well. In the nation's capital, hundreds of miles away to the north, government leaders were wrestling with thorny problems they seemed powerless to resolve.

Over the years their country had pioneered some amazing technological innovations and developed a fine educational system. One of the largest

nations on earth, it possessed enough natural resources to be self-sufficient, but now a trade imbalance was creating economic problems. The government itself, which had functioned efficiently in the past, had become a self-serving bureaucracy which did little to help the ordinary citizen.

The nation had been founded on high moral principles, and its people, for the most part, had been responsible and industrious. Now even that was changing as the original principles lost their vitality in the minds of the citizens and came to be regarded as mere traditions. An attitude of self-indulgence became increasingly common.



Pharmaceutical Society of Great Britain

The opium poppy

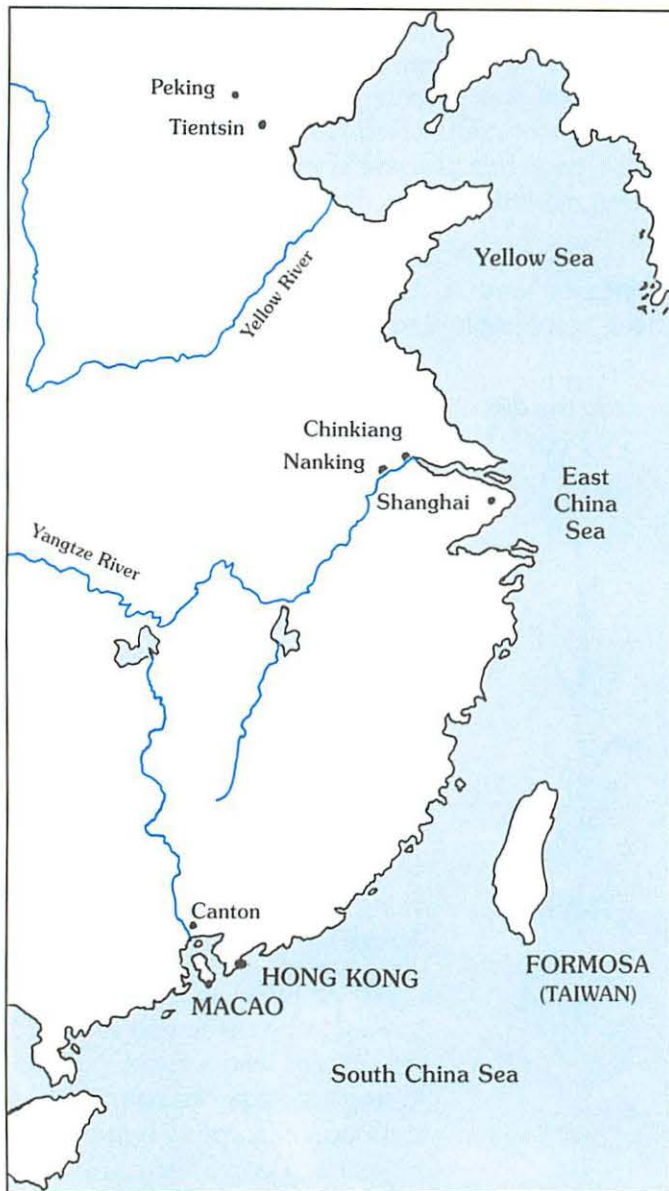
Illegal drug use became popular. Greedy, unscrupulous individuals from other countries began smuggling illicit substances into the country. The opportunistic foreigners quickly set up their base of operations in the southern port city, but it was not long before their wares were being sold in cities and towns across the nation.

There was so much easy money to be made that most of the officials who were supposed to stop the illegal drug traffic succumbed to accepting bribes and kickbacks. People from all levels of society were enticed to become involved with the drug scene—intellectuals, the military, the wealthy, and the poor.

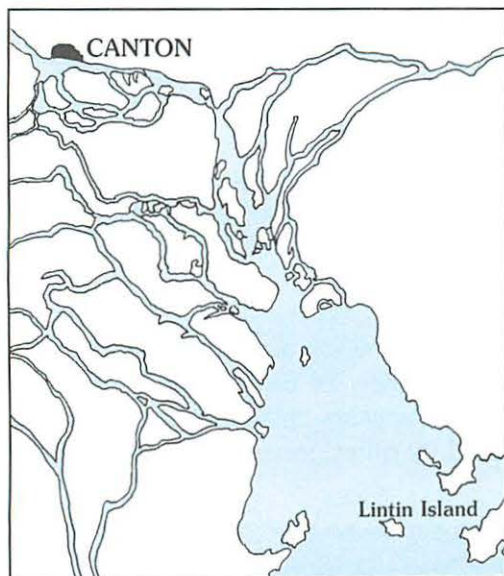
Inevitably, the narcotics began to take their toll on the mental and physical well-being of the users. Not only did the addicts destroy themselves, but also the deadly, infectious diseases from which they suffered often spread to family members and friends.

Soon the nation as a whole was suffering the debilitating effects of destructive habits. Within a period of a few years, this great country came to be dominated by other, much smaller nations.

What was the name of this great nation?



A map of China in the early 1800s



The opium trade flourished in Canton.

In this account the drug addicts gathered not in "crack houses," but in "opium dens." The southern city in this report was not Miami, but Canton. The country was not America; it was China in the early nineteenth century.

The striking similarities between these events of nineteenth-century China and those of twentieth-century America clearly illustrate the dangerous tendency of nations as well as individuals to identify a mote in the eye of another while ignoring a beam in their own.

The current epidemic of drug abuse in America and other Western nations is a graphic illustration of Christ's warning: "*For with what judgment ye judge, ye shall be judged: and with what measure ye mete, it shall be measured to you again*" (Matthew 7:2).

One hundred years ago, China, in the eyes of most Westerners, was an isolated, primitive nation tightly bound by its heathen past. Nineteenth-century Americans, if they had even thought about it, would have flatly rejected the notion that what was happening to China could ever happen to the United States. Contemporary Americans are similarly blinded to the fact that our nation is now moving toward an atheistic, totalitarian form of government.

There were, of course, a number of factors involved in China's decline from a wealthy, self-sufficient nation to the point at which Communism was able to overtake it. However, opium and its effect on the Chinese people was one of the most significant. Under its Manchu rulers, the Chinese empire during the Ch'ing (Qing) Dynasty (1644–1911) reached the peak of its entire 3,600-year history before the combination of internal corruption and external pressures caused it to collapse.

A familiar cyclical pattern of Chinese history was working itself out once again. Time after time a new ruling family would take over the country. For a while they would gain strength and influence. The ensuing period of relative prosperity and cultural achievement would be followed by a decline and eventually a revolt (usually by the peasants). Then a new ruler would seize control, and the cycle would be repeated.

This time a new dynasty would not rise from the ashes of the old. The people were so demoralized by what opium did to their country from within and what foreign oppression did from without

that it would take nearly a century for China to begin to recover.

The opium problem had its roots in the imbalance of trade between East and West. The British Crown had granted the East India Company a monopoly on all British trade with Asia. The Chinese government reluctantly agreed in the early 1700s to allow the company to do business with certain merchants in the city of Canton.

The British began buying huge quantities of tea, silk, and porcelain from China only to discover that the Chinese had little desire to buy the goods that were starting to pour out of English factories. In 1793 a diplomatic mission headed by the Earl of Macartney went to see the Manchu emperor. "As your ambassador can see for himself," the Emperor wrote in a haughty response to King George III, "we possess all things. I set no value on objects strange or ingenious, and have no use for your country's manufactures."

As the English consumption of tea rose dramatically, so did the trade deficit. This meant that silver bullion was flowing from Britain to China at an alarming rate. Then some British merchants found the ideal product to crack the Chinese market. They found it not in any factory at home but in the poppy fields of India, a land which was under British control at that time.

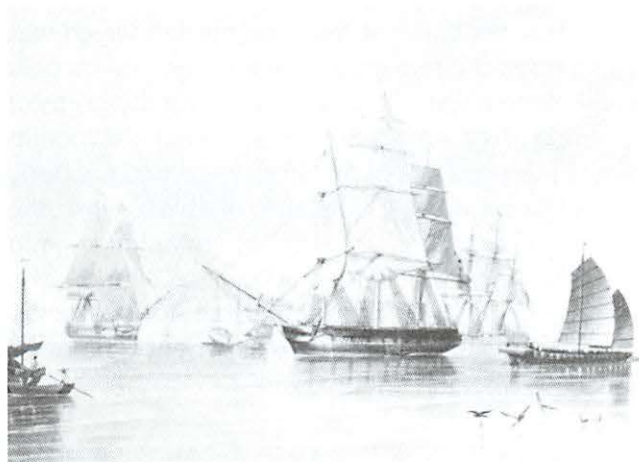


The Portuguese, the first outsiders allowed into China, established their trading operations at Macao on a peninsula not far from Canton. Early in the 1700s they had imported small quantities of opium, which the Chinese called "foreign mud."

At first, opium, which had been used in China for medicinal purposes at least as early as the seventh century, was a luxury only the affluent could afford. By 1729, however, opium-smoking had become widespread enough to merit an imperial

edict officially banning the practice, but this law was widely ignored. Realizing in 1796 that the problem was getting out of hand, the Emperor instituted more severe penalties for illegal drug use and four years later prohibited both domestic production and importation of opium.

Foreign importers were not stopped by the law any more effectively than the Chinese users were. An elaborate smuggling and distribution system developed as the opium trade flourished. The statistics from one trading company indicate how quickly the demand grew. In 1800 this firm shipped 30,000 pounds of opium to Canton. In 1825 that figure had grown to nearly one and a half million pounds. Just eleven years later the company sold almost four million pounds of the drug.



National Maritime Museum

The opium grown in Bengal by the British East India Company was transported to China in a fleet of very swift clipper ships specifically designed for the opium trade. Here some of them are pictured anchored off Lintin Island in Canton Bay where the smuggled goods were taken ashore by smaller Chinese vessels.

Although the East India Company had a monopoly on Britain's trade with China, the English were not the only foreigners involved in the opium trade. Other European nations and the United States bought opium in Turkey and Persia and smuggled it into China.

This business, like modern-day drug trafficking, was enormously profitable, making it possible to bribe corrupt Chinese bureaucrats, from lowly inspectors and clerks to high-ranking mandarins. Many of them were quite willing to look the other way or even participate in the illegal activities as long as they received a share of the spoils.

Some officials, by contrast, were alarmed at what was happening. Various anti-drug measures had been advanced by the Peking (Beijing)

government, and in some areas they had been successful in reducing the number of addicts, which by the 1830s may have been as high as twelve and a half million. Chinese officials, however, found they could not effectively deal with the addiction problem unless the British would cooperate to stop the smuggling.

Great Britain, however, was benefiting in two ways. Not only had their trade imbalance with China been reversed, but British India was also deriving one-seventh of its gross revenue from the duty imposed on opium exports. In 1832 a House of Commons committee reported that it did not at that time “appear advisable to abandon so important a source of revenue, a duty upon opium being a tax which falls principally upon the foreign consumer.”

This tax was not the only burden which was falling upon the foreign consumer. The addicts paid a high price physically and mentally for the hours of euphoria they enjoyed after smoking the opium pipe. Prolonged use of the drug weakened the body and sapped the will. Completely unable to work, the addicts allowed their families to plunge into miserable poverty. Moderation was impossible, because a smoker found he had to constantly increase his supply in order to experience the same effect the original amount gave.



Library of Congress

Addicts often spent long hours in the opium dens, lying on wooden benches. They would light their pipes from the small lamps and then wait for the drug to cast them into a deep sleep. An American missionary wrote of these places, “Never perhaps was there a nearer approach to hell on earth than within the precincts of these vile hovels.”



Radio Times Hulton Picture Library

As their dependence on the drug increased, opium smokers like these men would often resort to begging or stealing to support their habits.

Illegal drug use spawned other types of moral decay, such as prostitution and gambling. The addicts, whose health was ravaged by the narcotic, often fell victim to diseases such as influenza and tuberculosis, which were as infectious and deadly in that day as AIDS is today.

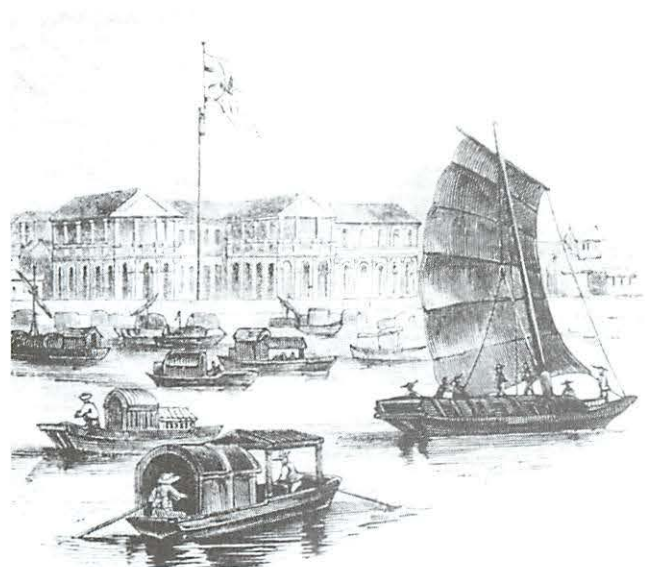
Although Britain’s conscience was not bothered by what drug addiction was doing to the Chinese people, she did eventually begin to feel guilty about another aspect of the situation—the fact that every pound of opium she sold to China had to be smuggled into the country illegally. By the time the drug traffic was accounting for over half of the capital set aside for trade with China, the British had decided that the only solution was to legitimize the opium trade.

What the British really wanted was a treaty with China guaranteeing them the right of free trade. This seemed completely reasonable to them in spite of the fact that the Chinese had made it clear they were not interested. In fact, the British were prepared to force the issue. They had surveyed the military strength of China and concluded that at “the first vigorous and well-directed blow by a foreign power, it will totter to its base.”

The Chinese, on the other hand, regarded the Englishmen as just another barbarian tribe like those they had kept out by building the Great Wall. As a result, they underestimated Britain’s naval prowess saying, “They do not know how to use fists and

swords. Also, their legs are firmly bound with cloth, and in consequence it is very inconvenient for them to stretch. Should they land, it is apparent they can do little harm."

In the midst of this explosive situation the Emperor appointed a new Imperial Commissioner to Canton. The mandarin he chose for the job was a man of integrity with a reputation for being a tough administrator. Arriving in the city early in 1839, Commissioner Lin Tse-hsu faced the overwhelming task of trying to stem the tide of opium which was flooding into the country through Canton Bay.



Radio Times Hulton Picture Library

Legal trade in tea and other goods took place in this narrow strip of the Canton waterfront where foreigners were allowed to live and do business. The lucrative opium trade, however, was carried on farther out in the bay.

Commissioner Lin, taking his responsibility seriously, promptly issued a stern order which addressed both the British traders and the Chinese import merchants.

The edict stated in part: "Let the barbarians deliver to me every particle of opium on board their storeships. . . . At the same time let the said barbarians enter into bond never hereafter to bring opium in their ships and to submit, should any be brought, to the extreme penalty of the law against the parties involved."

The foreigners were given only three days to comply with the order, and any Chinese who continued to collaborate in the illegal trade were threatened with execution.



F. Lewis, Publisher

Commissioner Lin Tse-hsu made it clear that he intended to enforce the law by using the death penalty if necessary.

Reluctantly the British handed over some 20,000 chests of opium. This was practically the entire opium crop for that year and had an estimated value of \$20 million. Taking great pains to guard against pilfering, Commissioner Lin had the whole batch of contraband destroyed by dumping it into trenches, dousing it with water, and sprinkling salt and lime on top.



Commissioner Lin (upper right) personally supervised the destruction of the confiscated opium.

The anger of the British traders would not be eliminated as easily, however. Nor was the British crown ready to take orders from the Chinese Emperor or even listen to the appeals of his officials. Commissioner Lin wrote an urgent letter to Queen

Victoria, in which he posed a very disturbing question: "We have heard that in your honorable barbarian country the people are not permitted to inhale the drug. If it is admittedly so deleterious, how can profiting by exposing others to its maleficent power be reconciled with the decree of Heaven?"

What the commissioner did not know was that the same company which supplied most of the opium that was being smuggled into China could import the drug to England and sell it there without breaking any law. Britain was more concerned about keeping its economy healthy than about keeping its national conscience clear.

As tensions mounted in China, the Royal Navy dispatched a couple of warships to Hong Kong in an attempt to intimidate the Chinese. Meanwhile, the drug runners had found new ways to carry on their undercover operations. The flow of opium slowed after the seizure of the 20,000 chests, but it certainly did not stop.

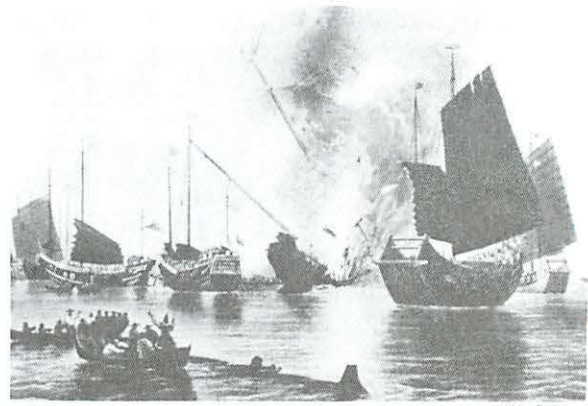
Then some British and American sailors on shore leave got into a drunken brawl, and a Chinese villager was killed. The British refused to turn over the suspects to the Chinese, who then retaliated by cutting off supplies to the British ships anchored off Hong Kong Island.

Commissioner Lin also made things very uncomfortable for the British traders and their wives and children in Macao, the Portuguese city where they lived during the off-season. In August these people were evacuated to the ships. With over one thousand on board, the need for food and water quickly became critical.

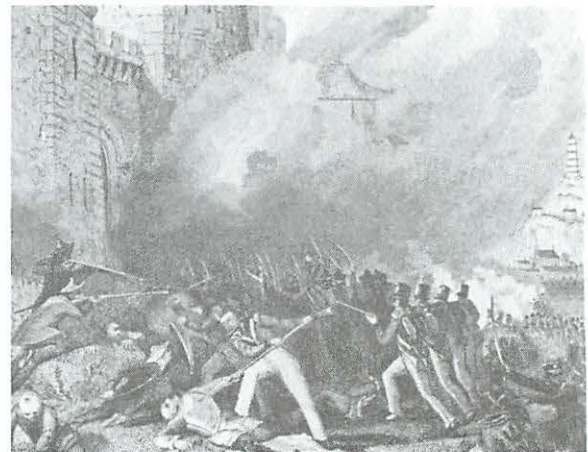
So on September 4, 1839, three small armed sailing vessels approached Kowloon to ask for supplies. They were met by several large junks (Chinese ships) armed with cannons. When the Chinese failed to respond to their ultimatum, one of the British vessels shot at the junks, and they returned fire as did the batteries on shore.

Though heavily outnumbered, the Englishmen fought bravely, but they failed to convince the Chinese that Her Majesty's navy was invincible or even to force them to hand over the supplies they requested. The battle ended at sunset when both sides stopped firing.

The skirmish had lasted only a few hours, but the so-called Opium War had begun and would drag on for nearly three long years. Although it was not as easy as they had boasted it would be, the British finally did gain the upper hand.



Fighting in the Opium War was quite sporadic, with most battles taking place at sea. In July, 1842, the British assaulted Chinkiang (below) on their way to take Nanking.



In August of 1842, Nanking (Nanjing) fell to the invaders, and the Chinese agreed to negotiate. The British, who had proudly refused to kowtow to the Manchu Emperor, would now have the satisfaction of making the Chinese submit to their demands.

The Treaty of Nanking was a thorn in the side of the Chinese for years to come. They were forced to (1) cede Hong Kong to the British, (2) allow foreigners to live and trade in Canton and four other ports, and (3) pay for the opium which Commissioner Lin had seized plus the \$15 million Britain spent on the war.

One result of the war's end was the immediate resurgence of the opium trade. Hong Kong quickly became the new center of the illegal traffic. Not only did opium imports increase, but the amount of the drug grown domestically also began to rise sharply.

In the province of Shansi (Shanxi), for example, opium was the main crop by 1882 in twenty districts and a major one in the other areas.

As a cash crop, it replaced most of the food the farmers would have otherwise produced, making them much more vulnerable to economic problems resulting from natural disasters and crop failures.



The British Crown Colony of Hong Kong was “built on the shattered lives of millions of opium addicts through the length and breadth of China.” The Jardine Matheson Company, one of the major economic influences in Hong Kong today, was the ringleader of the opium trade in the 1800s.

Following their defeat in the Opium War, the people of China became disgusted with their weak government and angry about the oppression by the “foreign devils.” As the suffering brought on by recurring floods and famines heightened their dissatisfaction with land policies, the people rebelled.

Within a decade after the war, a major peasant uprising called the Taiping Rebellion had embroiled the nation in a disastrous civil war. Even though Christianity was still feared and hated as a foreign religion, the Taiping movement, particularly in its early stages, had Christian overtones.

Their leader, Hung Hsiu-ch’uan (Hong Xiu Quan), drew many of his political ideas from a translation of the Scriptures into Chinese. He viewed his mission as turning the people of China away from their idolatry to the worship of the true God. However, he also had the confused notion that he himself was the younger brother of Jesus Christ and, thus, a member of the Trinity.

The Taipings wanted to overthrow the Manchu dynasty and institute sweeping social and political reforms. By 1860 they had been successful in capturing approximately half of the country and actually implementing some of their ideas in the capital they set up in Nanking. One of their reforms was to prohibit opium smoking as well as alcohol and tobacco usage.



That Hung Hsiu-ch’uan was able to attract so many followers suggests that more converts might have been won to Christ if missionaries had presented the Gospel in ways less alien to Chinese thinking.

Although the Western nations were not opposed to the overthrow of the Manchu rulers, it did not take them long to realize that the Taiping Rebellion was bad for trade. However, they used the unsettled conditions created by the rebellion as an opportunity to extract further concessions from Peking.

By this time the British had been joined by increasing numbers of American, French, German, and Russian traders, all wanting a chance to make a fortune in the Chinese market. In a campaign which has been called the Second Opium War, a combination of British and French forces occupied Canton in 1857 and then moved on to take Tientsin (Tianjin) the following year, forcing the Chinese to sign another treaty.



The 1858 Treaty of Tientsin, signed by European diplomats and Manchu rulers, was only one of a long series of “agreements” the West forced on China.

The Treaty of Tientsin legalized the opium trade and gave Westerners the freedom to travel in all parts of China. Western diplomats would now be allowed to reside in Peking. Russia was given control of Chinese territory north of the Yalu River. A short time later the treaty was extended, giving Russia another large portion of northern China and ceding the Kowloon side of Hong Kong to the British.

After fifteen years the Taiping Rebellion was finally squelched, but only with considerable help from Western nations.



Imperial troops attacked and conquered the Taiping capital at Nanking.

The movement quickly came to an end after a horrible massacre in 1864. The long struggle had cost the nation some thirty million lives. The Manchu government was now on the brink of collapse but still refused to institute needed reforms.

Opium was a greater problem than ever. The “foreign devils” were importing a greater variety of goods, including cotton, yarn, metal, and paraffin, but opium still accounted for approximately 30 percent of all imports in 1885. China’s mushrooming trade deficit was draining vast quantities of silver bullion out of the Emperor’s treasury, producing even greater instability in the government and in the economy.

While the Western powers continued carving China to divide it among themselves, the Japanese decided they wanted *their* share. They went to war with China over Korea in 1895. Japan won the Sino-Japanese War in a matter of months, and China lost possession of Taiwan, the Pescadores, and a piece of Manchuria.

This acquisition, however, was not enough to satisfy Japan. Russia, not willing to see its ambitions with China thwarted, defended against any more

invasion of Manchuria. This conflict soon erupted into war, and the world would be startled to see tiny Japan defeat mighty Russia in the Russo-Japanese War of 1904–1905.

During the years that the foreign powers were besieging China from without, opium was insidiously attacking it from within.



Radio Times Hulton Picture Library

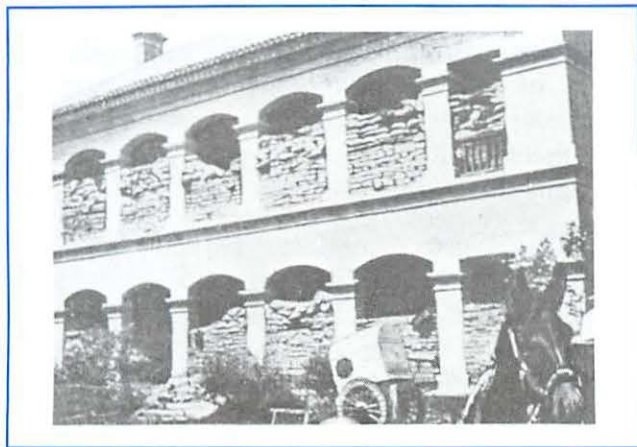
By the turn of the century, over twenty-two million Chinese—a full 5 percent of the country’s population—were addicted to the pernicious narcotic.

During the closing years of the nineteenth century a number of secret societies had gained strength all over the country. These groups were strongly anti-Manchu and often advocated violence. A group called the Boxers gained tremendous influence in northern China and began threatening the already-tottering regime in Peking.

The wicked Empress who was on the throne at that time, however, craftily deflected the Boxers’ hatred by turning it toward foreigners. By issuing an edict calling for all white people in China to be killed, she unleashed a flood of violence and bloodshed that shocked the Western world.

It was directed at all foreigners, but especially those who had brought in the “foreign mud” and all the evils it represented. Yet, the ones who were trying to help the opium addicts, the missionaries, suffered the most in this explosion of hatred known as the Boxer Rebellion of 1900. (See *Wisdom Booklet 32*, History Resource.)

In Peking the Boxers besieged the foreign legations, behind whose walls one thousand expatriates and three thousand Chinese Christians had taken refuge. For two tension-filled months they held off repeated onslaughts.



Wolper Productions

The British legation in Peking was sandbagged against the Boxer attacks.

The Western nations and Japan organized a multinational expeditionary force, which came in and quickly freed the captives but also went on a rampage of stealing, raping, and killing. Even the priceless ancient treasures of the imperial palace were looted and broken.

Once more under the thumb of the Western powers, China was forced to pay more than \$330 million in reparations for the Boxer Rebellion damages. Just over a decade later the last Emperor of China was forced from his throne. The Ch'ing Dynasty had fallen, bringing to an end three dozen centuries of continuous dynastic rule.

Regrettably, the democratic republic set up in 1912 with Dr. Sun Yat-sen (Sun Yi-xian) as its president did not last. In fact, in less than six weeks



Camera Press

Dr. Sun Yat-sen

the new government was wrenched from his hands by a power-hungry warlord. The fragmented nation then struggled through thirty-five years of bloody civil wars and foreign invasions. Eventually the Communists came out on top, having taken thirty million lives in the process.

The one who emerged in the 1920s as the torch-bearer of the Communist take-over effort was a young man named Mao Tse-tung (Mao Zedong). When he and his little band of revolutionaries had to flee after failing an attempted coup in 1928, they took refuge in a region on the border between the southern provinces of Hunan

and Kiangsi. There they found an easy and lucrative way to raise money to pay their guerrilla fighters and to finance acts of sabotage against the Nationalists—they simply grew opium.



Museum of the Revolution

Mao Tse-tung and his Red Army defeated the Nationalists in 1949. For many years before that, he had been using opium as a political tool. Once in power, however, he would stamp out opium addiction.

Under the guise of land reform to benefit the peasants, Mao was actually exploiting them by confiscating their poppy crops. When Chiang Kai-shek, the Nationalist leader, found out about it, the Nationalist government imposed a ban on opium cultivation. This regulation did not stop the Communists. They continued to grow poppies and established their first communal opium farm in Yen-an in the 1930s.

During World War II, farmers in the territory held by the Red Army were forced to plant poppies and then to sell two-thirds of the crop to the Communists at half-price. Mao also set up the Central Opium Bureau to oversee every aspect of production and distribution. The bureau regulated taxes on opium sales, set quality standards, and levied fines on any farmers who sold less than the full two-thirds of their crops to the Communists.

After Mao had gained control and driven the Nationalists out of mainland China, he solved the country's long-standing problem of opium addiction in typical totalitarian fashion—by executing the smokers and the pushers. Thus, China's "two-century decline, which began with the first self-indulgent puff on an opium pipe," was brought to an end.

Yet, the Communists continued to use domestically grown opium for political purposes, especially as an insidious means of undermining the defenses

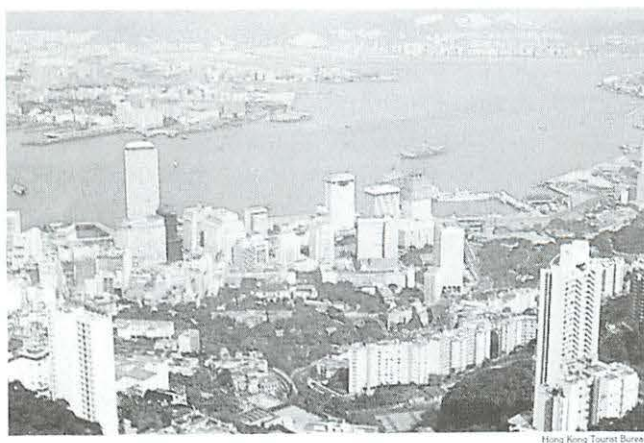
of Western nations. During the Korean conflict (1950–1953), for example, the Red Chinese supplied United States troops with narcotics at “bargain” prices.

Top-level party officials meeting in 1952 in Peking were told by a representative from the Ministry of Finance, “We have to find other means of increasing our foreign exchange. We must rely on our sales of opium, heroin, and morphine. . . . The drugs are a vital instrument of our foreign policy.”

The Ministry of Forestry and Reclamation was put in charge of increasing production. The Ministry of Foreign Trade was to promote the sale of opium and opium products abroad, while the Ministry of Hygiene was responsible for helping prevent drug addiction among the workers who handled the poppies during growing and processing.

In the four years following this meeting, the amount of agricultural land in Communist China devoted to opium poppies doubled. Within two decades the Mao government had expanded opium cultivation to cover some 137,000 acres. Annual production had climbed to 10,000 tons of raw opium, and the regime had built an estimated 72 opium processing plants. In all of China, only four provinces did not have at least one of these factories.

In the early 1970s American GIs in Vietnam could easily purchase Chinese heroin for \$20 an ounce compared to \$4,000 per ounce in the U. S. Evidence from a variety of sources indicates that by that time as much as 65 percent of the world’s illegal drugs were grown and processed in Red China, bringing in over \$800 million in profits.



Ironically, Hong Kong, the city that served as the port through which the Western nations smuggled opium into China during the 1800s, has now become one of the primary destinations through which the Communist government illegally exports the drug.

Today there are more than 100,000 addicts in Hong Kong consuming some 365 million dollars’ worth of the Chinese-grown opium and its derivatives. That much or more is smuggled out through Hong Kong to other parts of the world, especially the United States.

The Western nations, particularly Great Britain and the United States, are now reaping the corrupt harvest of what they sowed in the Chinese opium trade of the last century. This fact was made startlingly clear by what a Communist leader said in 1965. Chinese Premier Chou En-lai, meeting in Cairo with Egyptian President Gamal Abdel Nasser,



Chou En-lai

mentioned that China even at that time was supplying drugs to U. S. troops in Southeast Asia. He said, “Some of them are trying opium, and we are helping them. We are planting the best kind of opium especially for the American soldiers in Vietnam.”

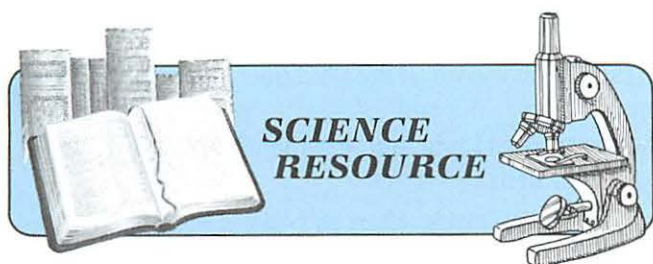
When President Nasser seemed shocked by this admission, Premier Chou went on to explain, “Do you remember when the West imposed opium upon us? They fought us with opium. And we are going to fight them with their own weapons. We are going to use their own methods against them. The effect which this demoralization is going to have will be far greater than anyone realizes.”

PROJECT

In the 1800s the United States considered itself an enlightened Christian nation. We, along with Great Britain, sent missionaries to the “heathen” in China. Yet, the Christian voice failed to bring effective appeals to the United States and English governments to stop the corruption of the Chinese people through opium.

Discuss how our profiting from the destruction of the Chinese people has brought a curse upon our own country. How are we being judged with the same judgment by which we judged them? How do these events emphasize the need for wise and courageous Christian leaders in our country?

Date completed _____ Evaluation _____



WHEN IS INSTRUMENT FLYING INSTEAD OF PERSONAL JUDGMENT A LIFE-AND-DEATH MATTER?



Piper Aircraft Corporation

The Federal Aviation Administration (FAA) has two sets of flight rules. *Visual Flight Rules (VFR)* govern flight procedures when pilots can see the ground. *Instrument Flight Rules (IFR)* govern flight procedures when visibility is poor and pilots must rely solely on their instruments.

A pilot who ignores his instruments has nowhere to go but down.

"Bradley Center, Bradley Center. This is Piper six-zero-one-six-papa. Over."

"Piper six-zero-one-six-papa. This is Bradley Center. Over."

"This is one-six-papa, seven miles north of Bradley Center at 4,500 feet, requesting emergency clearance to land. Over."

"One-six-papa, we are currently below VFR minimums. Do you have IFR certification? Over."

"Negative, Bradley Center. I am not instrument certified. Engine is running hot, and oil pressure is dropping fast. Need to land nearest airport. Over."

"One-six-papa, you have emergency clearance to land. No traffic in the area. Turn to

heading one-seven-zero and descend to one thousand feet. Over."

"Roger, Bradley Center. One-six-papa turning to heading one-seven-zero and starting descent. Over."

A minute later, the silence is broken with a frantic call for help as the pilot loses visual reference and goes into a "graveyard spin."

"BRADLEY CENTER! This is one-six-papa, I've lost visual reference! Can't see the ground! Going into a spin! Help! Help me! I don't know what to do!"

"One-six-papa, this is Bradley Center. Listen to what I say. REPEAT. Listen to me! Reduce power. Center the ball on your turn coordinator using right or left rudder. Center the needle using your ailerons. REPEAT. Center the ball. Center the needle. Level your wings. Over."

"Bradley Center, I can't see outside. Don't know which way to turn. Airspeed approaching yellow caution. I'm losing it."

"One-six-papa, don't look outside. Use your instruments. Concentrate on your INSTRUMENTS. CENTER THE BALL. FORGET YOUR AIRSPEED. Over."

"ROGER, Bradley Center. NEEDLE CENTERED. BALL CENTERED. Still spinning. Can't stop the spinning. Airspeed approaching one-sixty. Over."

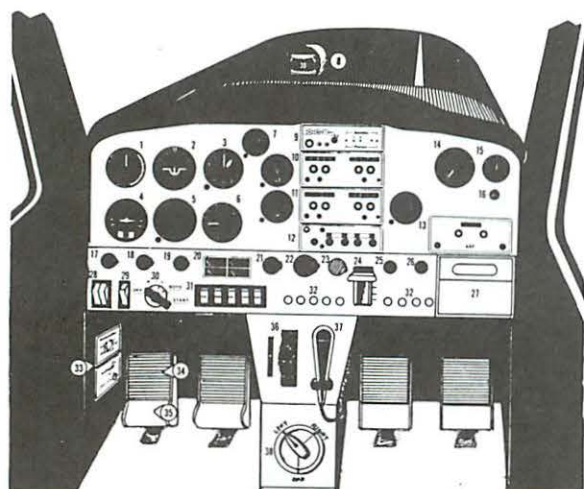
"One-six-papa, you must keep the needle and ball centered. Fly by the needle and ball. Ignore the sensation of spinning. You are OK. Now, pull back on the yolk. Easy. Check your airspeed. The moment your airspeed begins to drop, ease the yolk forward. Keep the needle and ball centered. Over."

"Airspeed dropping. Forward pressure on yolk. Airspeed still dropping. Ball centered. Needle centered. I . . . I can see the ground! There it is! I can't believe it! Nose level. Wings level. I still feel like I'm spinning, but I'm not. Altitude 500 feet. Runway in sight. Over."

"One-six-papa, use runway sixteen, wind six knots at one-three. Straight-in approach. Cleared for landing. Over."

Countless crashes have resulted when pilots who were deceived by their fallible senses refused to trust their instruments. However, a pilot who has faith in his instruments can fly safely without seeing the ground. Learn how an airplane's flight instruments illustrate our need to depend on reliable data rather than the erroneous information of our senses.

DIAGRAM OF AN AIRCRAFT COCKPIT



- | | |
|-------------------------------------|--------------------------|
| 1. Airspeed indicator | 7. Clock |
| 2. Attitude indicator | 8. Magnetic compass |
| 3. Altimeter | 9. Radio |
| 4. Turn coordinator | 10 and 11. VOR receivers |
| 5. Gyro compass (Heading indicator) | 14. Tachometer |
| 6. Vertical speed indicator | 20. Oil gauge |

1 The turn coordinator helps the pilot to prevent his plane from slipping or sliding through the air.

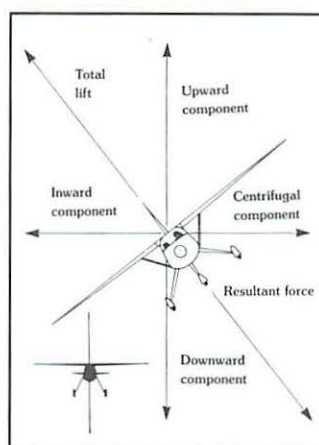
A turn coordinator is actually two instruments nested together in one gauge. The bottom half consists of a heavy ball sealed inside a curved tube of liquid. It looks like a short carpenter's level with a bubble that sinks instead of floats. Pilots refer to this as the *slip indicator* or *ball*.

As a plane turns, centrifugal force tends to cause the plane to skid outward while gravity tends

to pull it downward. If the pilot banks the plane at the proper angle, the pull of gravity perfectly balances the centrifugal force, and the plane makes a smooth, balanced turn.

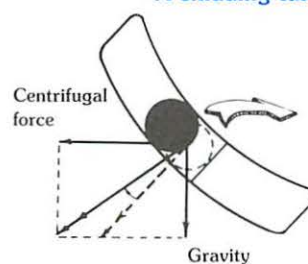
A plane *skids* when its bank is too shallow for the rate of turn. In this case the ball slides upward toward the outside of the turn as the plane skids sideways through the air. A plane begins to *slip* when the amount of bank is greater than the rate of turn. When this happens, the ball falls down toward the inside of the turn and the plane tends to slip. By keeping at least half of the ball within the centermost marks of the turn indicator, the pilot can make a balanced turn without skidding or slipping.

AIRPLANE TURNS

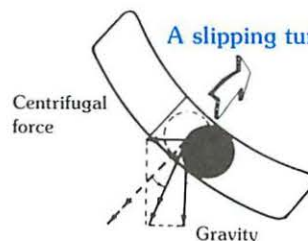


A balanced turn

A skidding turn



A slipping turn

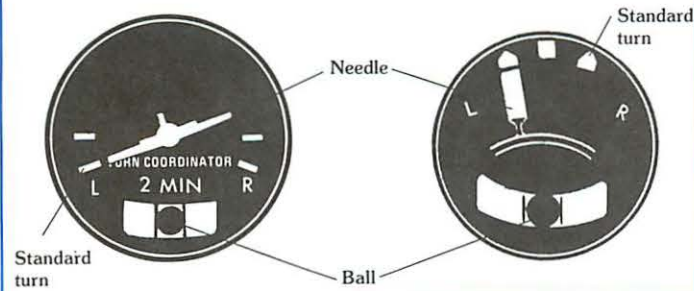


When the total lift is equal to centrifugal force plus gravity, the ball remains in the center and the plane neither slips nor skids.

The upper half of the turn coordinator shows the direction and rate of turn. Two needles resembling the wings of an airplane indicate how fast the plane is turning. The wings of the miniature airplane tip toward the left when the plane turns left and tip to the right when the plane turns right.

Behind the instrument window is a gyroscope spinning at high speed. When a plane turns, it forces the gyro out of alignment. As the gyroscope tries to keep its balance, it twists in response to the turning force. The wings on the face of the turn coordinator show how far the gyroscope twists. The greater the rate of turn, the more the gyroscope twists. When the plane stops turning, a spring aligns the gyroscope with the new direction of flight.

TURN COORDINATOR TURN AND SLIP INDICATOR



The turn coordinator allows the pilot to make a smooth and balanced turn without seeing the ground. The turn and slip indicator is an older version of the turn coordinator.

A spinning bicycle wheel is also a kind of gyroscope. As you turn the wheel to the left, it tips to the left. As you turn it to the right, the wheel tips to the right. The opposite also holds true. Leaning your bicycle to the left causes the wheel to turn to the left. Leaning it to the right turns the wheel to the right. Scientists refer to this twisting motion as *precession*.



The spinning wheel of a bicycle works like a gyroscope to maintain balance. Without the principle of precession, a bicycle would be very difficult to ride.

- ***How does the turn coordinator differ from the turn and slip indicator?***

The difference between the turn coordinator and the turn and slip indicator is in the position of the gyroscope. In a turn and slip indicator the gyroscope spins vertically and responds only to turning forces. In a turn coordinator the gyroscope has been tipped about 30° so it responds to both turns and rolls.

- ***How does the turn coordinator help the pilot recover from a graveyard spin?***

In a graveyard spin, the ball is likely to be forced outside the marks by the high rate of turn. The needle would also indicate a high rate of turn. If the needle is to the right, the pilot must apply left rudder and aileron in order to bring the plane back into balance.

- ***How does the turn coordinator help the pilot escape a bad situation?***

Both the turn and slip indicator and the turn coordinator are marked with lines indicating the standard rate of turn. A standard turn is one that makes a circle (360°) in exactly two minutes. Holding a standard turn for one minute turns a plane around (180°) so it flies in the opposite direction.

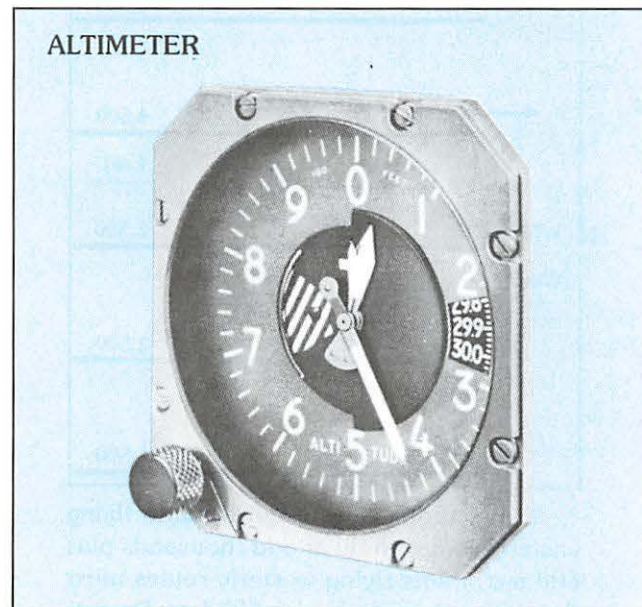
This is particularly useful to a pilot who flies into a cloud and wants to get out of it as quickly as

possible. By executing a standard turn for exactly one minute (ball centered and needle held on the standard turn marking), the pilot can make a 180° turn without seeing the ground.

2 *The altimeter reveals the pilot's separation from the world below.*

The altimeter (al-TIH-mih-ter) is actually a barometer—it measures the pressure of the air surrounding it. Because air pressure is greatest close to the earth and is inversely proportional to altitude, a barometer can be easily calibrated to show altitude.

Inside an altimeter, a sealed diaphragm moves in and out as the pressure changes. Attached to the diaphragm is a gear which controls the hands of the altimeter. As the plane climbs, the pressure decreases, the diaphragm swells, the gear turns, and the hands on the gauge move to a higher reading. As the plane descends, the pressure increases, the external pressure pushes the diaphragm back in, and the geared hands turn to a lower reading.



Most altimeters have three hands. The longest shows altitude in hundreds of feet. The medium shows thousands of feet, and the shortest reads tens of thousands. The scale on the right shows the corrected barometric pressure.

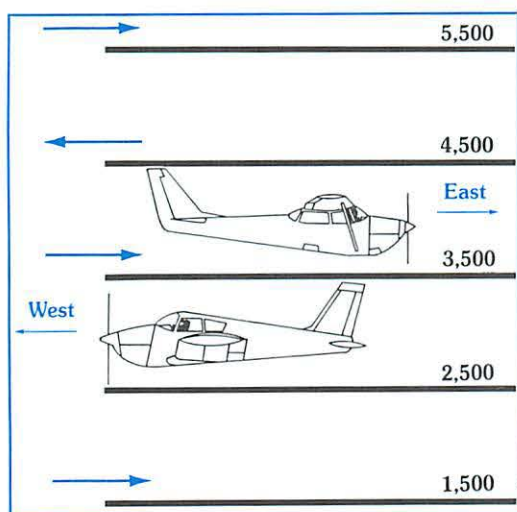
- ***Why must the altimeter be adjusted to a non-optional standard every time a pilot flies?***

Pilots must remember that altimeters measure only pressure and do not “know” where the ground is. Because atmospheric pressure changes from hour

to hour as the weather changes and no two airports have exactly the same elevation, pilots must continually adjust their altimeters to a common standard. That standard is called **mean sea level** (MSL). It indicates the average pressure and temperature at sea level—29.92 inches of mercury and 59°F, respectively.

All planes fly according to this standard, and all altimeters register the altitude of a plane as feet above that standard. A small knob on the side of the altimeter adjusts it for changing barometric pressure. Before a pilot takes off, he always checks the altimeter reading and pressure setting against a known standard, such as the altitude of the airport or the current barometric pressure.

When flying from a high-pressure system into a low-pressure system, the altimeter gives a falsely high reading. It measures the decreasing pressure and indicates that the plane is higher than it really is. Failing to adjust the altimeter for even a tenth-of-an-inch variation in barometric pressure results in a one-hundred-foot variation in altitude.

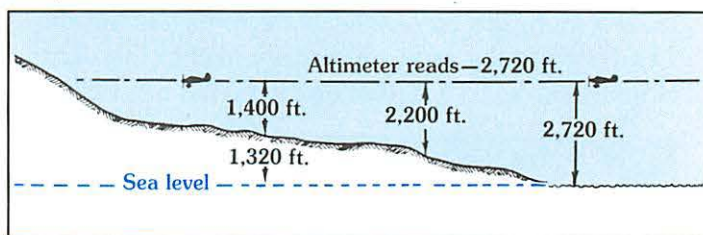


Visual flight rules require pilots flying easterly routes to fly at odd thousands plus 500 feet. Pilots flying westerly routes must fly at even thousands plus 500 feet. Deviating from these altitudes increases the risk of mid-air collisions.

• How does a pilot determine his distance above the ground?

In order to know how far above the ground he is, a pilot must know both his own altitude and the altitude of the ground. The difference between the two is his distance above the ground. If the altimeter reads 1,350 feet above sea level and the airport is located 1,000 feet above sea level, the pilot is flying only 350 feet above the ground.

If a pilot wants to fly 600 feet above a landing strip and the landing strip is located at 800 feet above sea level, he must maintain an altitude of 1,400 feet above sea level.



The Student Pilot's Flight Manual, William Kreshner, Iowa State University Press.

Failing to ascertain his own altitude or the altitude of the ground leaves a pilot in a very precarious situation. If he is not careful, he could fly right into the side of a mountain.

For example, a pilot approaching a mountain that rises 2,000 feet above the surrounding foothills could be in serious trouble. The foothills are arbitrary standards. They could be 500 feet above sea level or more than 1,000 feet above sea level. Without a non-optional standard for comparison, a pilot could fly straight into the side of the mountain even if he flew at an altitude of 2,720 feet above sea level.

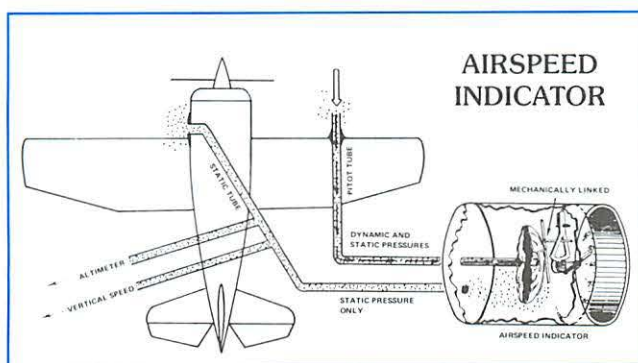
3 The airspeed indicator compares an airplane's forward pressure with its lateral pressure.

Like the altimeter, the airspeed indicator also compares one type of pressure to another. Inside the airspeed indicator, a diaphragm also swells and shrinks with changing pressure. However, changes in pressure are created by the speed of the aircraft rather than by changing altitude.

A small tube, called a *pitot* (PEE-toe) tube after the French physicist who invented it, catches a small stream of air as it rushes over the wings. The tube then directs this stream of air to the airspeed indicator, where it pushes against a small diaphragm inside it. The faster a plane flies, the greater the pressure against the diaphragm. The diaphragm swells, and gears attached to the diaphragm turn the hands on the gauge.

However, the pitot tube does not indicate how much pressure is due to forward motion and how much pressure is due to static or atmospheric pressure. To account for this lateral pressure, engineers attached a second tube, called a *static tube*, to the back side of the airspeed indicator's diaphragm. The static tube draws a stream of air from the side of the plane. This stream equalizes the

atmospheric pressure within the airspeed indicator so it registers only the pressure resulting from forward motion.



The Student Pilot's Flight Manual, William Kershner, Iowa State University Press

The pitot tube and static tube openings must be checked and cleared of obstructions before every flight. Even a minor blockage can result in a serious error in airspeed.

Like altimeters, airspeed indicators must also be set against a non-optional standard. The numbers on the face of the dial are all calibrated for standard pressure and temperature conditions at sea level. These also must be checked regularly.

• When is the airspeed indicator wrong?

Because air is less dense at higher altitudes, it creates less pressure in the pitot tube. This means that a plane traveling at the same speed registers less airspeed at 10,000 feet than it does at 5,000 feet. As a rule of thumb, pilots must correct for this difference by adding about 2 percent more airspeed for every thousand feet they fly above sea level.

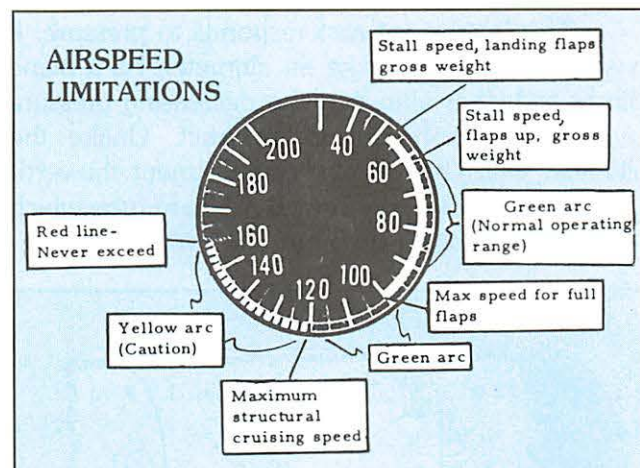
A plane flying at 100 miles per hour at 10,000 feet registers only 80 miles per hour on the airspeed indicator. Planes that regularly fly above 10,000 feet use a computer to correct airspeed to the non-optional standards of sea level.

• How does the airspeed indicator warn of an approaching stall?

A stall occurs when the air rushing over a wing fails to produce enough lift to hold the plane in the air. As a stall approaches, the plane begins to shudder, and then it literally falls from the sky. While pilots are trained to recognize the characteristics of an impending stall, the airspeed indicator can alert a pilot long before a stall becomes imminent.

Markings on the airspeed indicator show the stall speeds with and without the use of wing flaps at maximum weight. Markings also indicate the normal

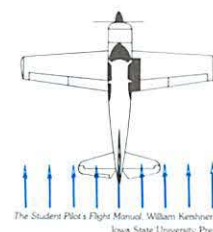
operating speed, the maximum cruising speed, and the point at which the wings begin to tear off.



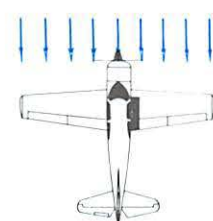
The Student Pilot's Flight Manual, William Kershner, Iowa State University Press

• How does ground speed differ from airspeed?

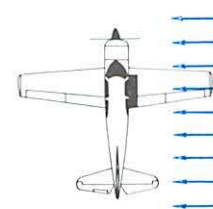
Airspeed and ground speed are not the same. Airspeed is the measure of a plane's speed with respect to the air. However, the air (wind) may also be moving with respect to the ground. Calculating the ground speed of an aircraft requires a pilot to add airspeed and wind speed together.



Tail winds add to ground speed.



Head winds reduce ground speed.



Crosswinds alter direction.

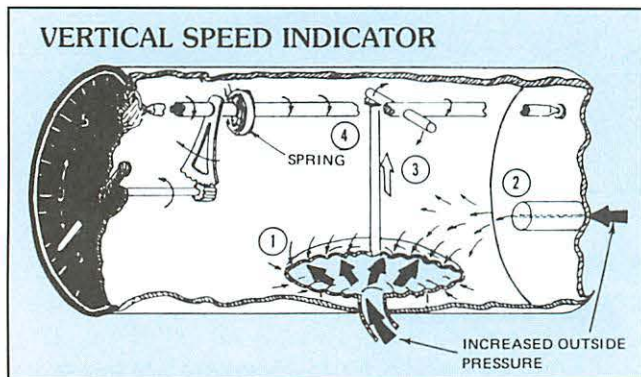
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For example, if a pilot is flying at 150 mph and a tail wind is blowing at 30 mph, his ground speed is 180 mph. However, if the pilot turns around and flies into the wind, his airspeed remains at 150 mph, but his ground speed drops to 120 mph. In the first instance the wind is blowing with the plane and adds to its ground speed. In the second instance the wind blows against the plane and reduces its ground speed.

In the case of a crosswind, a pilot must add or subtract *vectors*. For example, a 30-mph crosswind blows a plane off course. The compass heading may read due north, but the direction of the shadow on the ground moves northwest. In order to maintain a northerly heading, the pilot must compensate for the wind by flying northeast.

4 The vertical speed indicator measures rate of climb or descent.

This instrument also responds to pressure. It has a diaphragm just like an altimeter. As a plane climbs to higher altitudes, the decreasing pressure causes the diaphragm to contract. Unlike the altimeter, which has a sealed compartment, the vertical speed indicator has a small capillary tube which allows outside air to seep into the compartment.



The vertical speed indicator measures the difference between where a plane used to be and where it is now. This rate of change registers on the gauge.

As air seeps into the compartment, it equalizes the changing air pressure. The hole is so small, however, that the air pressure is not equalized immediately. The inside pressure always lags behind the pressure outside the instrument. When a plane climbs or descends quickly, the difference between the inside and outside pressure builds up, indicating a high rate of altitude change. As the plane levels off, the air pressure equalizes, and the diaphragm returns to its normal position.



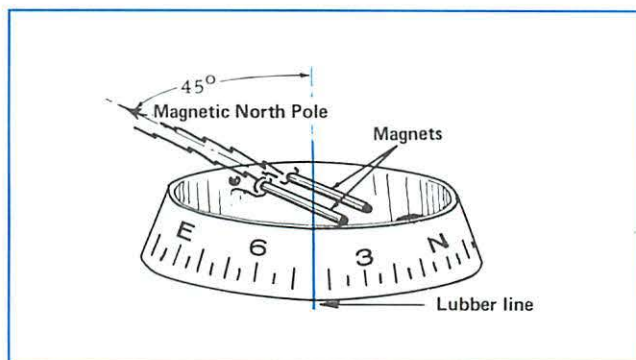
Pilots use a vertical speed indicator to set up a smooth glide of about 500 feet per minute during landing and a smooth climb of 500 feet per minute during takeoff.

Because a vertical speed indicator works as a result of lag, it is always "behind." It still indicates that a plane is climbing after it has actually leveled off. When a plane begins to descend, it reads "zero" for some time until the pressure difference builds up within the instrument. This makes a vertical speed

indicator a poor choice for maintaining a constant altitude. It is meant to be used only to establish a constant rate of climb or descent.

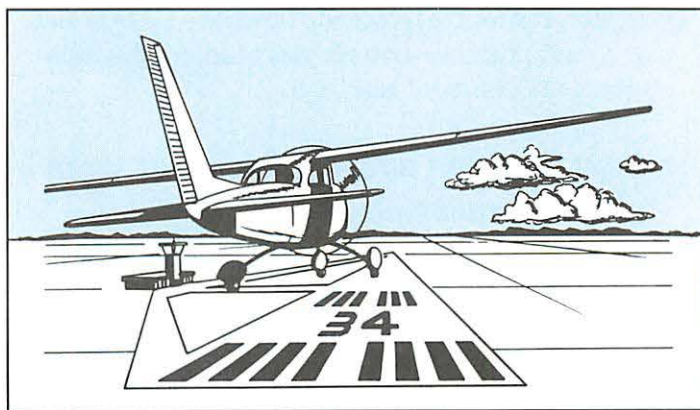
5 The compass maintains a fixed position around which the pilot can select his flight path.

A magnetic compass is simply a magnet covered with a round card divided into 360 equal parts. Because the magnet always aligns itself with the north and south poles of the earth, it provides a fixed point around which the plane turns. When the compass needle appears to move, it is actually the plane, not the compass, which is turning.



The lubber line is a reference which must be carefully aligned with the longitudinal axis of aircraft. If the lubber line is not set properly, the compass may indicate one direction while the plane flies in another. This compass reads 45°, which is halfway between north and east.

0° on the compass indicates north. 90° indicates east. 180° points south. 270° points west, and 360° points back north again. Many pilots drop



Airport runways are numbered according to their magnetic headings from the perspective of landing aircraft. Runway three-four runs just west of north. Runway one-six is the same runway, but a plane using it would be landing in the opposite direction.

the last zero on these headings and refer to 270° as simply "two-seven." 90° becomes "nine" or "niner."

• **How do pilots compensate for quirks of the magnetic compass?**

Magnetic compasses are reasonably accurate at headings of east and west. However, as a plane turns to the south, the compass tends to turn too fast and "leads" the true reading. When turning to the north, the magnetic compass lags behind. This means that a pilot must hold a turn until after the needle has passed 180° when turning south and must pull out of a turn before the compass reads 0° when heading north.

Accelerating and decelerating also affect a magnetic compass. When a plane flying east or west accelerates, the compass naturally turns slightly toward a more northerly heading. When slowing down, the compass shifts toward the south. A pilot who fails to anticipate these shifts may find himself led astray by a compass which is otherwise working perfectly.

To compensate for these peculiarities, engineers have taken advantage of the gyroscope's tendency to remain rigid in space. A gyroscope maintains a fixed position around which a plane can turn without affecting the position of the gyro. However, the gyro compass (heading indicator) does not "know" which way is north, as does a magnetic compass. It must be reset to agree with the magnetic compass at the beginning of every flight. During straight and level flight, when the magnetic compass is correct, a good pilot will readjust the gyro compass every fifteen minutes to make sure it has not "wandered off on its own."

HEADING INDICATOR

A gyroscopically controlled heading indicator does not wobble back and forth in rough weather nor lead or lag in a turn.



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Some advanced gyro compasses are connected to computers which automatically correct for any diversion in their position.

• **How do unusual attitudes (positions) divert the compass?**

Magnetic compasses are suspended at a single point inside their housing. Unfortunately, when the bank of a turn exceeds 20° , the compass tilts so far to the side that it often gets caught on the housing and cannot move until the plane is once again in level flight. This makes it difficult for a pilot to pull out of a steep turn at a given heading. A compass may also hang up in a steep climb or dive.

Even gyro heading indicators have trouble at unusual attitudes. The indicator bumps against its housing and tumbles erratically at an angle of 55° or more and must be locked in place for acrobatics or when practicing recovery from spins and stalls.

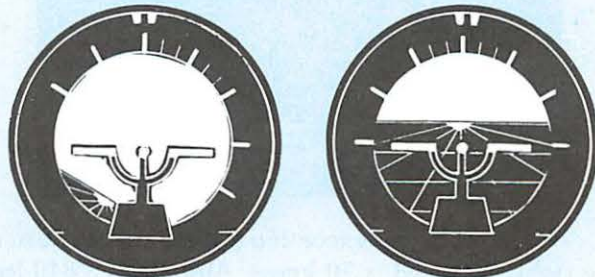
More expensive gyro compasses are housed in specially rotating carriages which tilt in any direction, allowing the gyro to spin freely without any limitation. These compasses indicate the true heading regardless of the attitude of the plane.

6 **The attitude indicator reveals the corrections that are needed to restore straight and level flight.**

Another instrument found in most modern aircraft is the attitude indicator. *Attitude* refers to the position of the aircraft relative to the horizon. An airplane may be nose up or nose down, banked right or banked left, or an infinite variety of these combinations.

If a pilot loses sight of the horizon, his senses may become so easily fooled that he may not be able to tell which way is up. The attitude indicator provides a reliable artificial horizon which a pilot can use to keep his plane straight and level.

ATTITUDE INDICATORS



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The instrument on the left shows the nose high and the wings banked in a left turn. The instrument on the right shows the nose low and the wings level.

Most attitude indicators picture a fixed miniature plane painted on the window of the instrument. The horizon in the distance is actually the face of a small gyroscope which remains level regardless of which way the plane moves. As a plane changes attitude, the horizon remains fixed; it does not change. However, because the miniature plane is fixed to the plane itself, it shows precisely how the real plane is flying relative to the real horizon.

Most attitude indicators have limits of 70° pitch (up-and-down movement) and 100° of bank (tilt). If a plane exceeds these limits, the gyro bumps into the instrument housing and begins to tumble. It returns to normal only after the plane resumes straight and level flight.

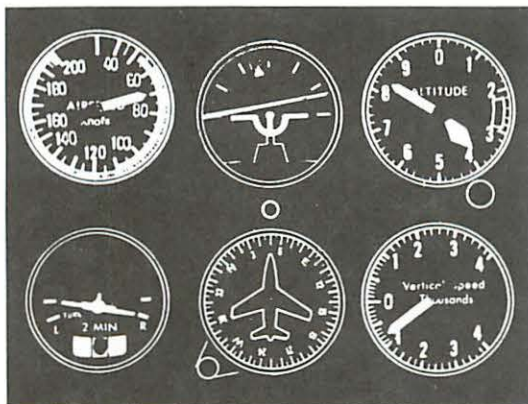
Like some heading indicators, more expensive attitude indicators are made to move freely without any limitations. They show the true attitude of an aircraft—even when it is upside down.

• How does the attitude indicator reveal deviations from straight and level flight?

When the wings of the miniature plane are parallel to the artificial horizon, the wings are level with the real horizon. Wings that are above the horizon indicate that the nose is high. Wings below the horizon show that the nose is down.

Markings around the perimeter of the attitude indicator show the angle at which the wings are banked in a turn. Like other instruments, the attitude indicator must be adjusted to bring the artificial horizon in line with the real one.

CAN YOU TELL WHAT THIS AIRPLANE IS DOING?



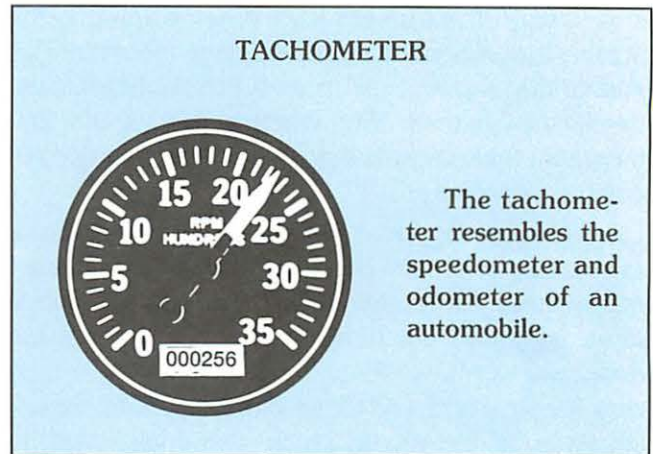
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The airplane is executing a standard rate turn to the right. Airspeed is 70 knots. Altitude is 3,840 feet above sea level. Current heading is 50° NE and losing altitude at a rate of 750 feet per minute.

If the plane continues on its present course, what will be its heading and altitude in two minutes?

7 The tachometer and oil gauge allow the pilot to monitor his engine.

The tachometer works much like the speedometer and odometer of a car. A flexible cable connects the tachometer to the engine. As the engine turns, it turns the cable, which registers both revolutions per minute and cumulative revolutions on the face of the tachometer.



Flight Training Handbook, U. S. Department of Transportation, Federal Aviation Administration

Revolutions per minute (rpm) reveal the power of the engine. Since the propellers of most light aircraft are attached directly to the engine, the tachometer also gives the rpm's of the propeller. As rpm's increase, more air passes over the wings, creating more lift. As rpm's decrease, less air moves over the wings, and there is less lift. This means that rpm is one factor which controls the altitude of an airplane. Increasing rpm causes the plane to gain altitude, while decreasing rpm causes the plane to lose altitude.

The tachometer also records the total number of revolutions an engine makes in the course of a flight. This number is called *flight hours*. Flight hours are based on a standard cruising rpm for the aircraft. For example, if the cruising power for a plane is 2,300 rpm, 2,300 rpm times 60 minutes per hour requires 138,000 revolutions for one flight hour. 69,000 revolutions represents one-half hour of flight time.

Obviously, an engine flying at 2,300 rpm builds up flight hours faster than one running at only 1,300 rpm. This means that an engine builds up flight hours more slowly while taxiing, gliding, and warming up than it does cruising or climbing.

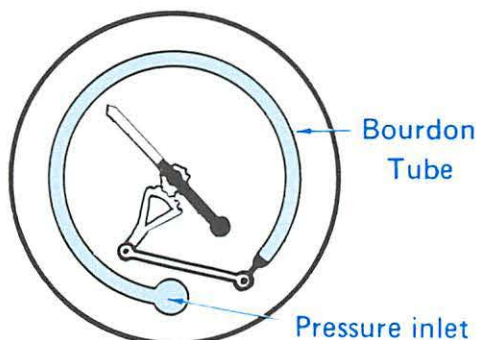
Aircraft inspections are based partly on flight time. Every 100 flight hours, an engine must be

inspected by a certified mechanic to ensure that it is in its best possible running condition. In addition to the regular hundred-hour inspections, aircraft must also be inspected every twelve months.

- **How does a small tube measure oil temperature and pressure?**

The oil gauge is perhaps the most important engine instrument. It tells both the temperature and the pressure of the engine oil. Dropping oil pressure and rising oil temperature are both signs of major engine trouble. They are the first indicators of engine failure and loss of power.

A small, curved tube called a **Bourdon** (bore-DOAN) **tube** measures oil pressure and temperature. Increasing pressure inside the curved tube causes the tube to straighten out. Decreasing pressure allows the tube to coil up. As engine oil fills the Bourdon tube, the pressure straightens the tube and registers oil pressure on the gauge.



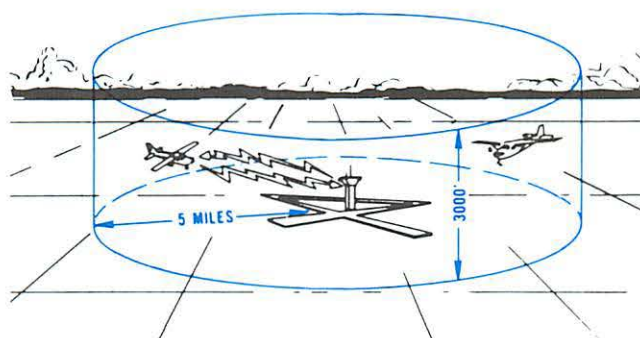
The Student Pilot's Flight Manual. William Kershner, Iowa State University Press

Oil temperature is also measured by a Bourdon tube—one filled with a volatile liquid. As the engine temperature rises, the liquid evaporates, increasing the pressure inside the tube and causing it to straighten out. As the engine cools, the liquid inside the tube condenses, and the tube returns to its original position.

8 **The radio puts the pilot in contact with those who can help him.**

A pilot may contact several different radio stations in the course of a flight. Each station provides a different service. Air Traffic Controllers (ATC) located in a control tower give the pilot clearance to land or take off, or inform him of local

weather conditions and other air traffic in the area. Ground control gives the pilot directions on where to taxi his aircraft once he is on the ground.



Flight Training Handbook, U.S. Department of Transportation, Federal Aviation Administration

The airport control tower has jurisdiction of aircraft within a radius of five miles at 3,000 feet or below. Aircraft cannot enter this area without proper authorization.

Flight Service Stations (FSS) provide extensive weather reports from across the country, receive and monitor flight plans, notify the proper authorities if an airplane is missing, report special notices to airmen, announce matters important to pilots, and offer assistance in case of an emergency.



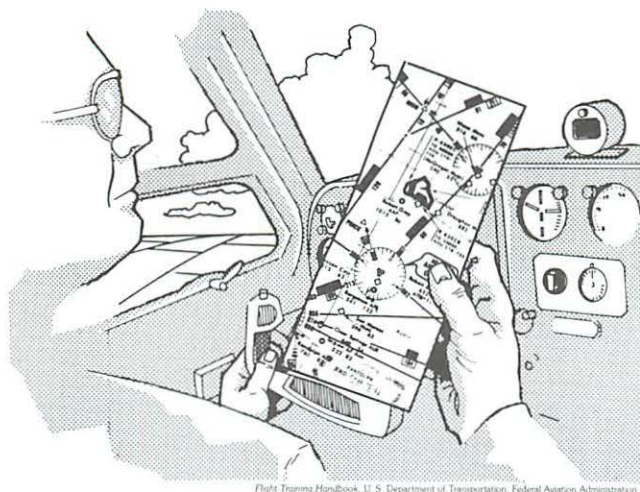
Flight Training Handbook, U.S. Department of Transportation, Federal Aviation Administration

The Flight Service Station provides pilots with the information they need to avoid bad weather and unexpected changes in airport conditions.

UNICOM frequencies allow a pilot to call an airport for weather information, to find out about other air traffic in the area, to rent a car, to order a meal, or to contact a friend on the ground. This frequency has no authority or control. Many pilots use UNICOM frequencies simply to let other pilots know their intentions at uncontrolled airports.

MULTICOM is a frequency reserved for air-to-air communications between pilots. This special frequency takes the pressure off busy frequencies and allows pilots to coordinate search-and-rescue missions or special activities without tying up those frequencies.

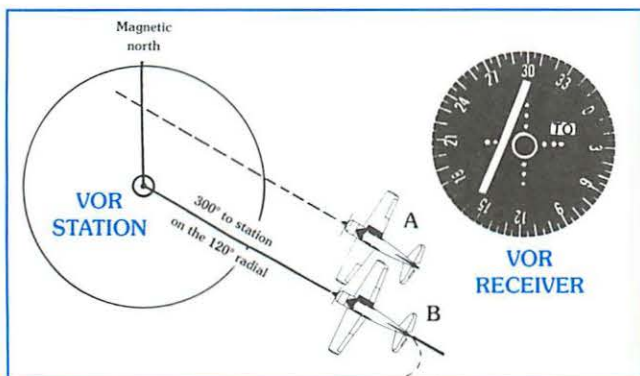
- **How does radio help the pilot find his way without signposts or road maps?**



Flight Training Handbook, U.S. Department of Transportation, Federal Aviation Administration

Perhaps one of the most important uses of radio is for navigation. Special radio transmitters called VOR's are located strategically throughout the world. (VOR stands for Very-high-frequency Omni Range.) A VOR emits two signals. The first is a *pulsating signal* which travels outward in all directions thirty times a second. The second is a *directional signal* which rotates clockwise thirty times a second. The two are timed so that the pulsating signal (also called the *omni signal*) pulses every time the directional (rotating) signal points north.

A special VOR receiver located in the airplane is able to measure the delay between these two signals and determine the exact direction the plane is traveling relative to the station. VOR's give pilots signposts which they can follow from one place to another when flying cross-country.



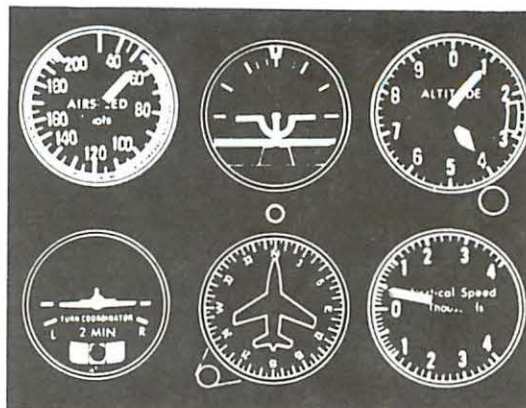
The Student Pilot's Flight Manual, William Kershner, Iowa State University Press

To fly toward a VOR station, a pilot simply dials his radio to the frequency of the station and adjusts the direction of his aircraft so the needle is centered on his VOR receiver. The *uncentered* needle on the VOR receiver above tells the pilot in airplane A which way to turn to get back on course (airplane B).

PROJECT 1

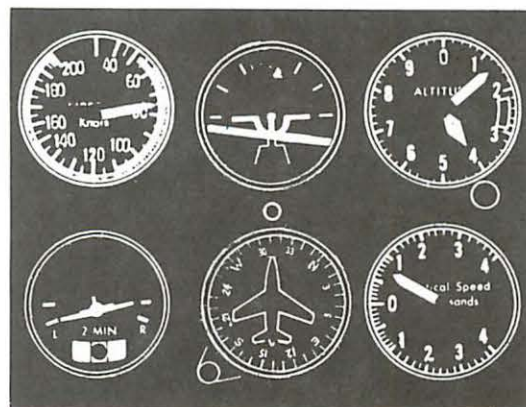
Interpret the readings of the following instruments. Determine the altitude, airspeed, attitude, heading, rate of ascent or descent, and rate of turn. Which example indicates a critical situation?

EXAMPLE ONE



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EXAMPLE TWO



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PROJECT 2

Match the following questions and their verses to the instruments pilots use.

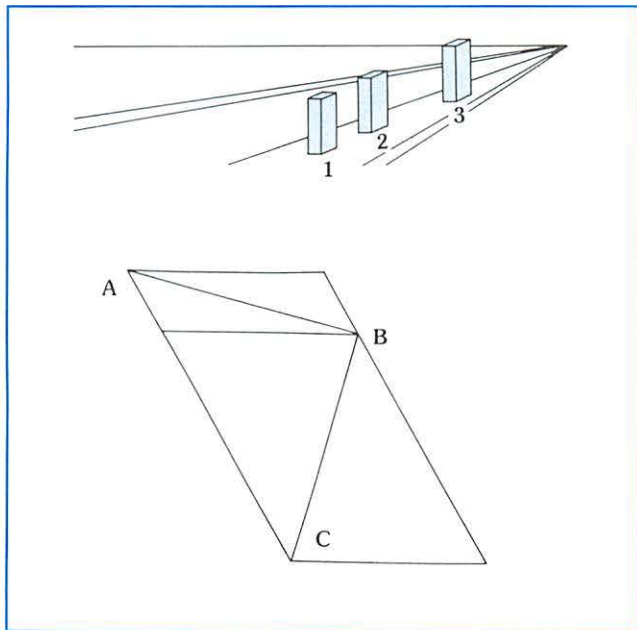
- Are you prepared to turn? Luke 1:17
- Are you separated from the world? II Cor. 6:17
- Are you rejoicing in opposition? II Cor. 12:10
- Are you growing in grace? II Peter 3:18
- Are you on the path God has set? Isaiah 30:21
- Are you able to accept correction? II Timothy 3:16
- Are you resting in God's power? Romans 13:1-2
- Are you asking for help? Matthew 7:7-8

"There is a way which seemeth right unto a man, but the end thereof are the ways of death" (Proverbs 14:12).

Date completed _____ Evaluation _____



HOW DO THE PRINCIPLES OF PERSPECTIVE DRAWING RELATE TO JUDGING OTHERS?



Which beam is the biggest in the top drawing: 1, 2, or 3? They are the same size. Measure them. In the second drawing, “beam” BC looks taller to the eye than “beam” AB. Measure them and see if this observation is accurate.

The mote and beam to which Jesus refers in Matthew 7:3 are vastly different in size. However, when viewed from varying perspectives, they can appear to be the same size.

“And why beholdest thou the **mote** that is in thy brother’s eye, but considerest not the **beam** that is in thine own eye?” (Matthew 7:3).

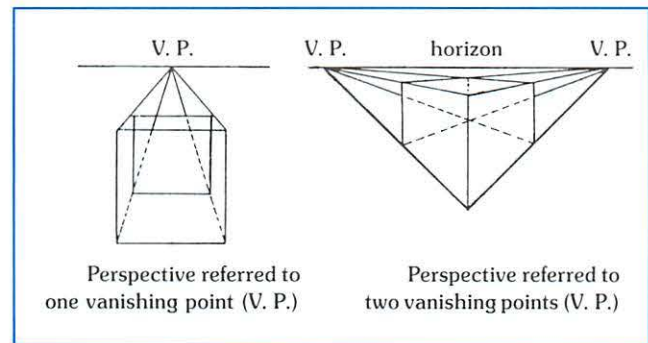
On one hand, perspective shows the relationship between one object and other objects. When Jesus said, “. . . Why beholdest thou the mote . . . ?” He was emphasizing the difference in relationship between the mote and the eye.

On the other hand, when Jesus said, “. . . Considerest not the beam that is in thine own eye?” He was exhorting us to compare the mote and the beam with each other.

In the top drawing, when you measure and compare the beams with each other, you find that

they are exactly the same size. However, when you see them in relation to the background, number 3 appears to be much larger.

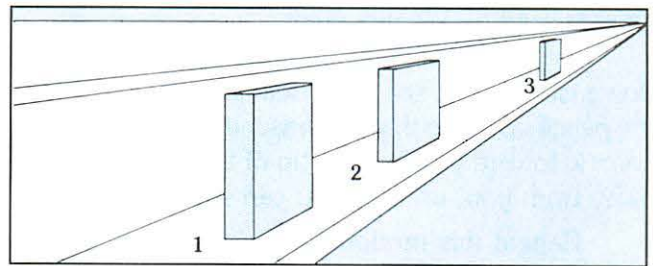
Perspective drawing is the use of lines and angles to interpret on two-dimensional paper what the observer sees in three dimensions. Perspective drawing is closely related to geometry, the branch of mathematics which deals with points, lines, angles, planes, and solid objects. A knowledge of geometry will help a person to make realistic drawings.



Learning to draw a cube according to the principles of perspective will provide the basis for drawing objects accurately. These two cubes are exactly the same size; the difference between them is perspective.

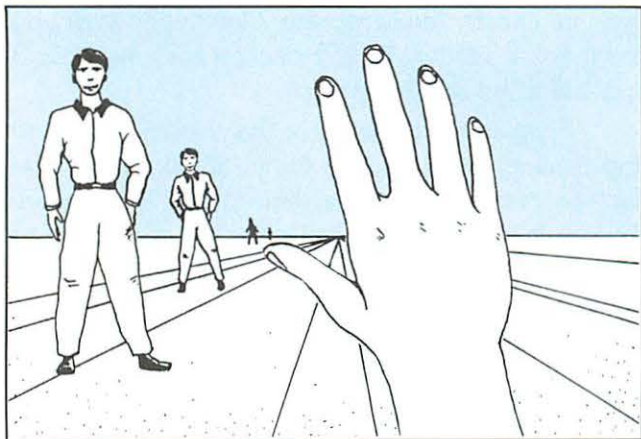
1 How does the principle of DIMINUTION help us to see the mote and the beam as the same size?

Diminution (dih-mih-NYOO-shun) comes from the word *diminish* and refers to the process of dwindling or decreasing in size.



Which beam is the biggest in this drawing: 1, 2, or 3? Based on the principle of diminution, they are all the same size, even though when you measure them, number 1 would be the biggest in the picture.

When a person wants to draw what he sees in three dimensions on a two-dimensional piece of paper, the principle of diminution will help him to portray accurately which objects are closer and which are farther away in harmony with God’s design.



A good way to see diminution is to extend your arm in front of you and hold up your hand. Have someone stand about twenty feet away from you. As you compare that person's height to the height of your hand, you will notice that the two are about the same.

Have the person move about fifty feet away. He will now look smaller, about as tall as your thumb. Then have the person move two hundred feet away. He will appear even smaller, about as tall as your thumbnail. The farther away the person is, the smaller he will look.

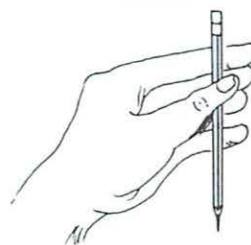
2 How does the principle of **FORESHORTENING** force us to make further investigation?

Another fundamental principle of perspective drawing is known as **foreshortening**. *Foreshortening* is a term used to describe the condensed or compressed changes that you see as the main axis of an object is turned toward you or the object is viewed from an oblique angle.

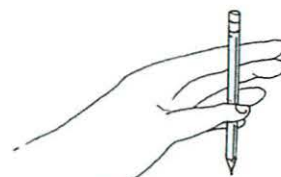
Hold a pencil in front of you, straight up and down, so you can see the whole pencil. Now rotate the pencil slowly so that the eraser end of the pencil is coming toward you and the tip of the pencil is going away from you, until all you can see is the eraser.

Repeat this motion, holding up both hands. While one hand holds the pencil straight up and down in front of you, spread the thumb and forefinger of the other hand to match the length of the pencil.

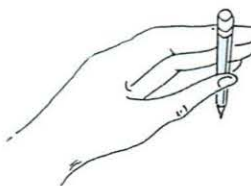
Rotate the pencil again, comparing the pencil's length to the distance between your thumb and forefinger. What happens to the length of the pencil as it turns? Your eyes automatically foreshorten it, or make it look shorter, by compressing its length.



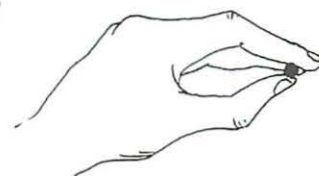
1. When a pencil is held straight up and down, you see its true length.



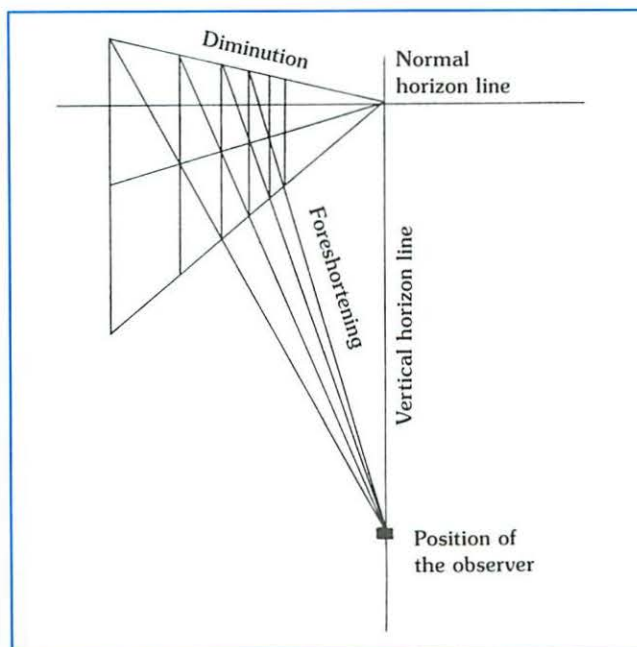
2. As the pencil is slowly rotated toward your face, its length appears to shorten.



3. Rotate the pencil further, and it appears even shorter.



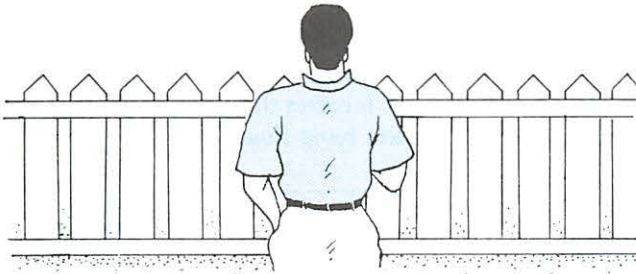
4. When the end of the pencil is all that can be seen, the pencil is 100 percent foreshortened.



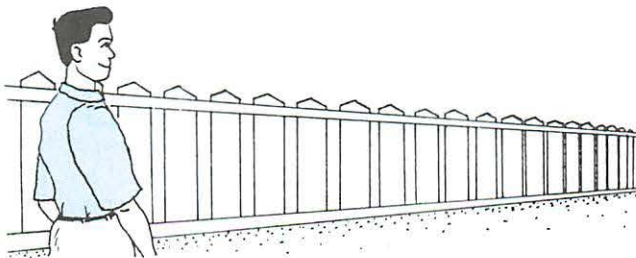
These vertical lines are drawn according to the principle of diminution. Notice that the spaces between the lines grow progressively smaller. This condensed or compressed space is not accidental; it has been done according to the principles of foreshortened space.

3 How does the principle of **CONVERGENCE** warn us when we are looking down on people?

A third fundamental principle of perspective drawing is **convergence**. **Convergence** is a term used in geometry. **Converging lines** are two or more lines that meet at a point. Parallel lines are two or more lines which do not meet, even if extended in both directions.



The observer is looking at the fence head-on. The pickets all appear the same size and are spaced the same distance apart. The top and bottom horizontal boards look parallel.



The observer is now looking “down” the fence. The pickets nearest him look bigger than the pickets farther away (diminution). The spaces between the pickets that are near look wider than the spaces between the pickets that are farther away (foreshortening). The top and bottom boards of the fence no longer look parallel, but look as if they will converge (come together at a point).

The point where the lines converge is called the **vanishing point**. Although this point may or may not actually be in the picture, the artist must always draw the objects in respect to it. If you extend the top and bottom boards of the picket fence, you will find the vanishing point—the point where the two boards converge.

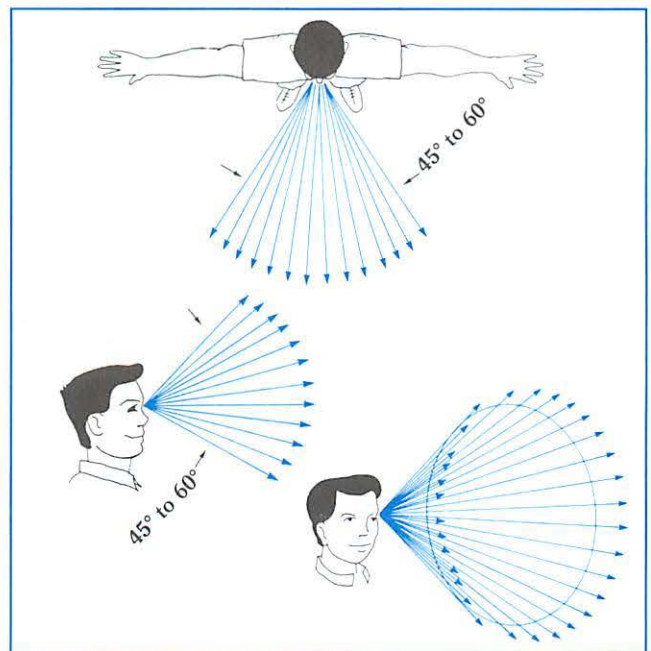
The vanishing point in a picture will always be located on the **horizon line**, the line where the sky and land (or sky and sea) meet. It is always at the eye level of the observer, even when it is not actually in the picture.

Understanding the concept of convergence will also help a person recognize what is seen and from what angle. If a person were to stand on a beach and look at the horizon, he would see an equal amount of ocean and sky. If this same person were to sit on the beach, he would see more sky than ocean. If, however, this person were standing on a hill overlooking the ocean, he would see more ocean than sky.

4 How does the principle of **FIELD OF VISION** protect us from peripheral misjudgment?

A person's **field of vision** is defined as a fixed circle or cone of sight lines that radiate from the eye. When we look around us, what we are really doing is focusing on a succession of spots, or centers of interest. As our eyes focus on one spot, what we can see clearly falls within a small circle that has the spot as its center.

You can test your own field of vision. Focus your eyes on a spot straight ahead. Hold up your right hand so it is in front of the spot. Now, while still keeping your eyes fixed straight ahead, slowly move your hand away from the spot to the right. At some point, your hand will move out of your field of vision. Do the same thing with your left hand.



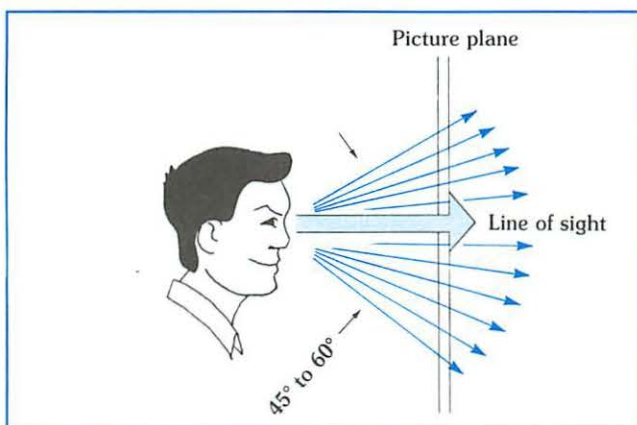
The angle formed by a line drawn from your eyes to the point where your left hand leaves your sight and a line from your eyes to the point where your right hand leaves your sight is between 45° and 60°. This is your field of vision.

Although you can still “see” your hand, it is no longer in the area where your eyes accurately focus. While you know that your hand is there, if asked to accurately describe it or some other object in the vicinity, you probably could not do so without shifting your eyes.

If you repeat this procedure, using both hands at the same time (moving your hands first left and right and then up and down), you will have a rough idea of how much your eyes accurately focus on at one time.

The line that goes from the eye to the spot where the eye is focused is called the **line of sight** (also called the *central visual ray*). Now imagine a plane (or window) passing through your cone of vision and perpendicular to this line of sight.

If you were to trace everything you see on a plane of vision, you would be drawing three-dimensional objects on a two-dimensional plane, and they would all be in correct perspective.

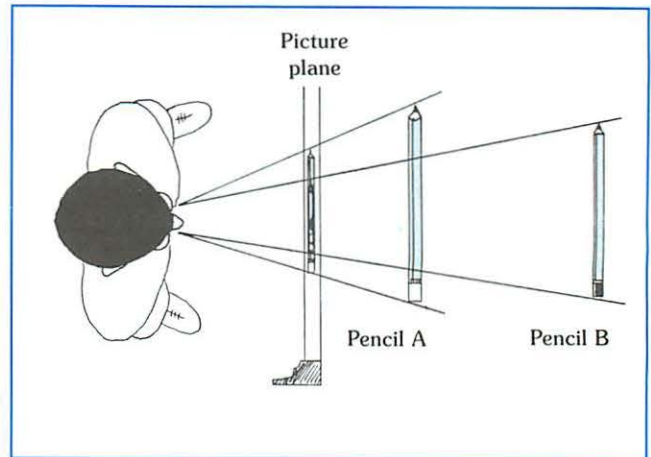


A plane of vision can be better understood if you stand in front of a window and focus your eyes straight ahead on a fixed point outside. Think of the window as the plane passing through your cone of vision.

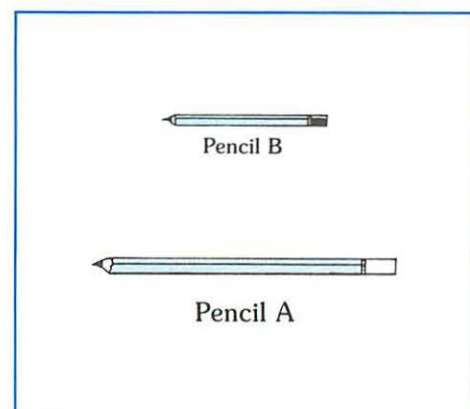
Look at the principle of diminution again, this time in conjunction with the principle of convergence and the concept of lines of sight in a picture plane. The observer is looking through a picture plane at two pencils that are lying down.

By drawing lines of sight from the observer's eyes to the ends of pencil A (the pencil that is closer to the observer), you can observe that where the lines intersect the picture plane marks the ends of the pencil if you were to draw it on the picture plane.

Repeat this process for pencil B, the one that is farther away. Notice that the points where the lines of sight cross the picture plane for pencil B are closer together than they were for pencil A, even though the two pencils are the same length.



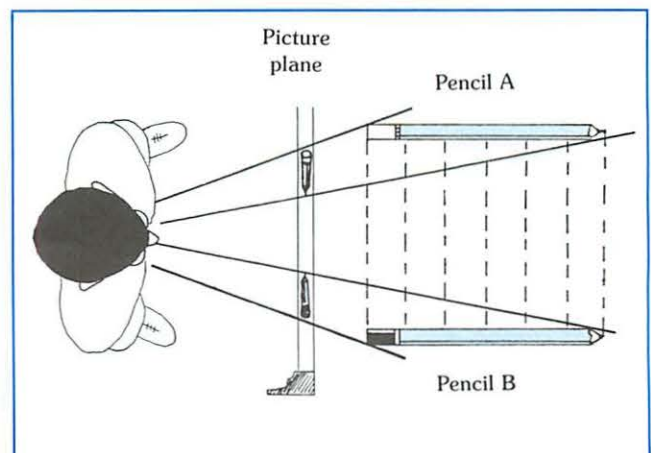
The observer is looking through a picture plane at two pencils that are lying down.



Picture plane of the two pencils

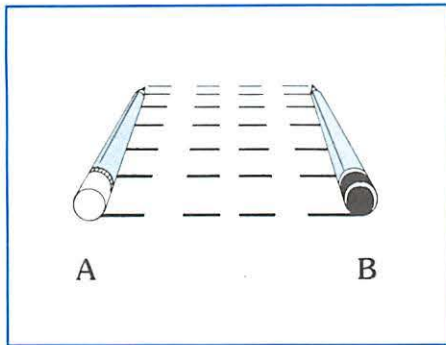
The above picture plane shows what the two pencils look like from the observer's point of view. If there were several more pencils laid in a line like this, they would look like diminishing railroad ties.

The principle of convergence can also be demonstrated with the concept of lines of sight and a picture plane.



These two pencils are lying parallel to each other and point away from the observer.

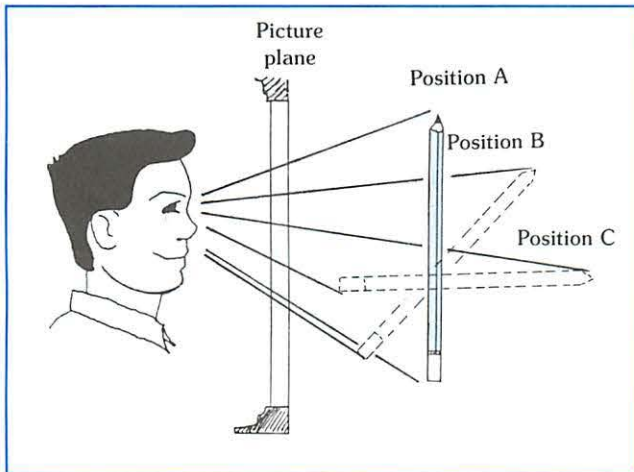
Draw the lines of sight from both ends of each pencil to the observer. The points where the lines of sight from the eraser ends intersect the picture plane are closer together than the points where the lines of sight drawn from the sharpened ends intersect the plane. This makes the sharpened ends look closer together than the eraser ends.



Picture plane of the two pencils

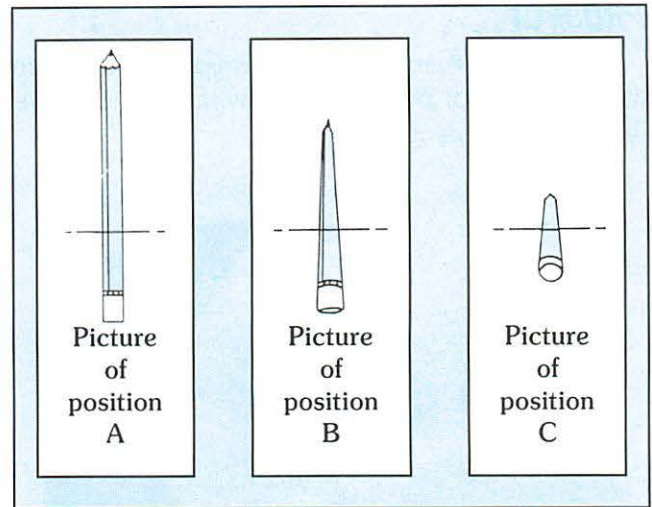
This picture plane shows what the pencils look like to the observer. Drawn this way, the two pencils look like converging rails of a train track.

Foreshortening can also be explained using lines of sight and a picture plane. A pencil is rotated through positions A, B, and C. In position A, it is straight up and down (vertical); in position B, it is rotated about 45°; and in position C, it is almost horizontal.



Lines of sight are drawn from both ends of the pencil at each of the three positions.

As the pencil moves from position A to position B, the points where the lines of sight intersect the picture plane move closer together. When the pencil is moved to position C, the points where the lines of sight intersect the picture plane move even closer together.



Foreshortening makes the pencil look shorter and shorter in the picture plane of the observer.

QUESTION:

How much of the pencil would you see if the rotation were continued slightly past position C?

ANSWER:

Only the eraser.

QUESTION:

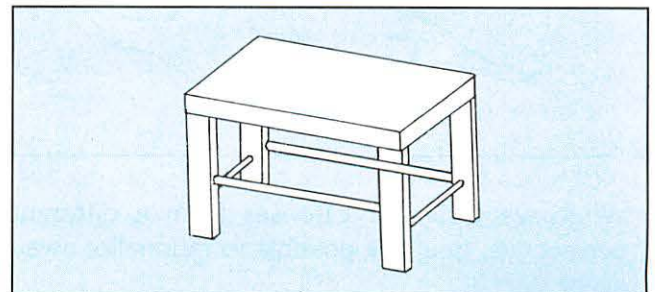
How many lines of sight would you draw in this position?

ANSWER:

Only one, since the eraser would be your point of focus.

5 How does the principle of **OVERLAP** help us avoid confusion in judgment?

When an object blocks another object from view, this is known as the principle of **overlap**. The principle of overlap is a very obvious, simple principle, but it is often overlooked. When used properly, the principle of overlap gives a drawing the appearance of depth.



When the principle of overlap is ignored or used improperly in a drawing, the result is confusion.

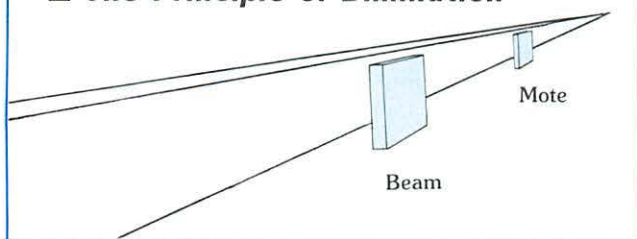
PROJECT

Make as many analogies as you can between the principles of perspective drawing and the attitudes of unrighteous judgment.



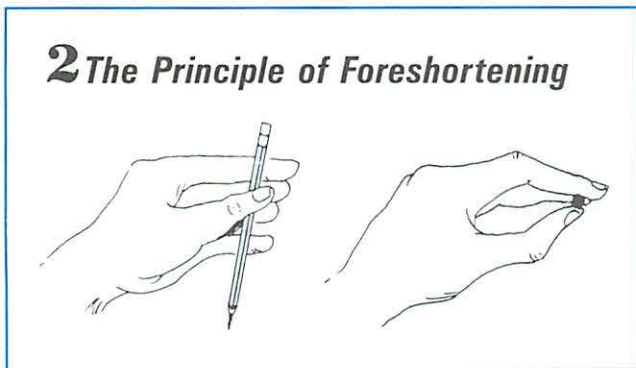
"Judge not, that ye be not judged"
(Matthew 7:1).

1 The Principle of Diminution



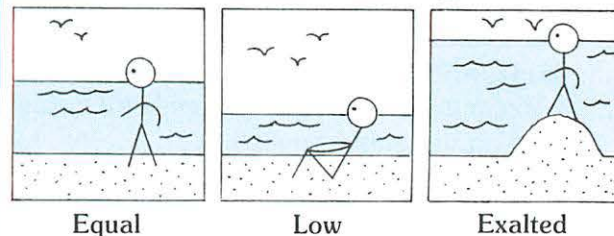
- With a beam in one eye we lose depth perception. How will this hinder us from removing the mote that is in the eye of another?
- How will close scrutiny of a brother's offense cause our offenses to seem smaller?

2 The Principle of Foreshortening



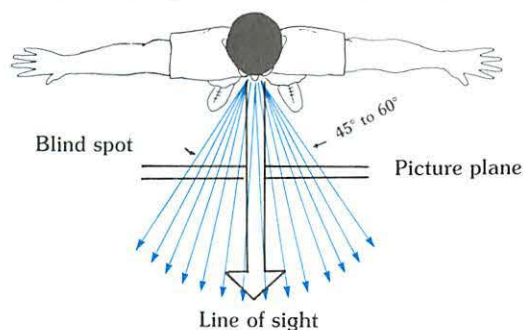
- When we view our offenses from a different perspective, how is it possible to rationalize away every sin?
- How will turning our "beam" endwise create a blind spot in viewing the "motes" of others?

3 The Principle of Convergence



- How will a high view of ourselves cause us to see more faults in the lives of others?
- How will a low view of ourselves cause us to think more highly of others?

4 The Principle of Field of Vision



- How does looking closely at the faults of others affect our field of vision?
- How does a wider field of vision decrease our ability to see clearly?

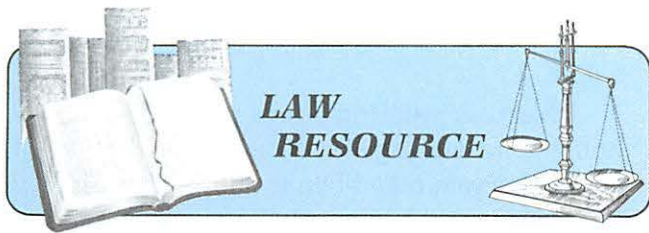
5 The Principle of Overlap



- How will failure to remove our own beam first cause confusion in trying to help another with a similar problem?
- How will justifying the beam in our eye cause us to misjudge similar faults in others?

Increase your artistic skills by practicing the principles of perspective drawing.

Date completed _____ Evaluation _____



HOW DOES THE ABUSE OF TORTS DEMONSTRATE THE CONSEQUENCES OF JUDGING OTHERS?



It is obvious that this bicycle was designed for only one child—not three. If an accident were to occur while three are riding on it, would the manufacturer be liable for injuries?

Common sense tells us that a manufacturer should not be responsible for injuries that result when a consumer misuses his product. However, today's tort laws have established a different conclusion.

A few years ago a lawsuit was filed on behalf of two children who were injured while riding on a toy motorcycle. The owner's manual clearly warned against allowing more than one rider at a time, and the same warning was displayed on the motorcycle itself. The court, however, still held the manufacturer liable because, said the ruling, young children cannot be expected to heed written warnings.

No wonder manufacturers are frustrated by the way most courts are applying tort laws today.

The law of torts deals with situations in which one person has not fulfilled an obligation to another person. The term *tort* comes from a Latin word meaning "to twist." It refers to a private or civil conflict in which the legal duty of one party in

relation to the other has not been fulfilled, resulting in actual loss or injury.

The court seeks to rectify the situation by awarding *damages* (monetary payment) to the one who was wronged. The one who is legally responsible to pay for the loss is said to be *liable*. Such a legal action including all the proceedings it involves is called *litigation*.

When Jesus said, "Judge not, that ye be not judged" (Matthew 7:1), the verb He used for "judge" was κρίνω (KRIH-noe), the same word He had used earlier in the Sermon on the Mount when He explained how we should respond to lawsuits: "And if any man will sue [κρίνω] thee at the law, and take away thy coat, let him have thy cloak also" (Matthew 5:40).

So the message of Matthew 7:1 involves how a Christian who is in a position to bring a lawsuit should act. Rather than prohibiting all judging or lawsuits, Jesus was commanding us not to have a judgmental attitude.

Paul's instructions to the Corinthians clarify this concept. He explains that believers should not take each other to court but should bring their cases before the elders of the church. (See I Corinthians 6:1–6.) This warning was in keeping with the long-standing Jewish prohibition on petitioning non-Jewish courts to settle disputes between Jews.

Yet, what concerned Paul more than their relying on the ungodly civil courts was the judgmental attitude which was the root of their disputes. "Now therefore there is utterly a fault among you, because ye go to law [κρίμα, from κρίνω] one with another. Why do ye not rather take wrong? . . ." (I Corinthians 6:7). It is better to suffer an injustice than to enter into a lawsuit with a judgmental spirit.

Although a litigious attitude is nothing new in America, drastic changes in tort law during the last two to three decades have resulted in a litigation explosion. Prior to this, the common-law conception of tort, which had its roots in Scriptural principles, kept in check the tendency to have a judgmental spirit. As our system of law has shifted from its Biblical base to a humanistic one, litigiousness has been allowed to run rampant. Thus, instead of justice we now have tort abuse.

Court rulings have steadily chipped away at the solid, common-law notions of "fault," "negligence," and "contract." Consequently, the tort liability system no longer serves its original purpose of determining guilt and exacting restitution. Its new role is that of a middleman dispensing insurance benefits to accident victims.

TORT ABUSE VIOLATES THE BIBLICAL PRINCIPLE OF RESPONSIBILITY IN TWO MAJOR WAYS.

The new tort rules which the courts have developed reflect the shift of the entire legal system to a humanistic basis for the law. They are, therefore, completely at odds with the Scriptural concept of responsibility.

Much of the law contained in God's Word is given in the form of case law. An understanding of the Scriptural principle of legal responsibility can be gained by examining some Old Testament examples of liability.

Whom does God hold responsible in each of the following situations?

CASE 1

One day Abinadab and Berechiah had a disagreement and got into a fistfight. Abinadab saw that he was not going to win with just his bare hands, so he picked up a big rock and hit Berechiah over the head.

Berechiah was knocked unconscious, and some friends carried him home. His wife sent for the doctor. After bandaging Berechiah's wound, he gave the wife some salve to put on it and told her that he thought her husband would be all right.

A short while later, Berechiah regained consciousness. He had a terrible headache, but after a couple of days of bed rest he was able to get up. He even walked around outside, but he had to use a walking stick. Soon the gash in his head healed, and after a week he was able to work in his fields as usual.

To what extent is Abinadab liable according to Scripture?

- ☐ A. He is not liable because he was just defending himself.
- ☐ B. He should pay the doctor's fee and pay Berechiah for the six days of work he missed.
- ☐ C. He should pay whatever amount a judge sets. This amount would include the victim's medical expenses and loss of time from work plus an additional sum to compensate for the pain and suffering caused by the injury.

Check your answer by reading Exodus 21:18–19.

CASE 2

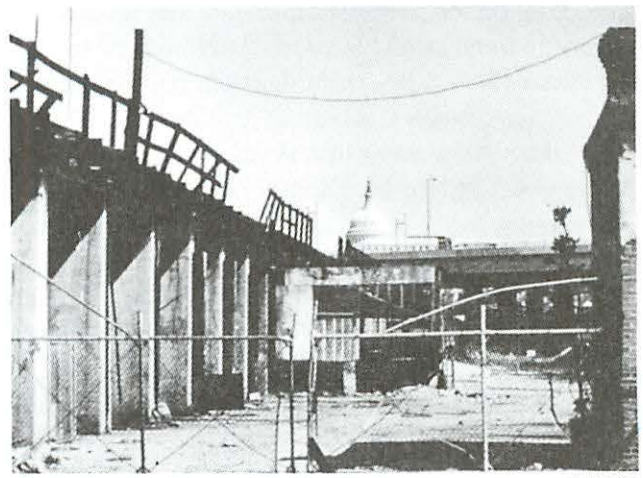
Jehiel was installing a new well behind his house. One evening after he had been digging all day, his wife called him to supper. Because he was tired and hungry, he did not stop to put boards across the opening as he usually did. He thought to himself that he would come back after supper to do it.

By the time Jehiel finished eating it was dark, and he forgot all about covering the half-finished well. The next morning when he went out to start work, he was shocked to find that during the night his neighbor's milk cow had fallen into the hole. He surmised that the cow had broken her neck—she was obviously dead. Jehiel's neighbor was quite upset when he found out about it.

According to Scripture, to what extent is Jehiel liable for his neighbor's loss?

- ☐ A. He is not liable because the neighbor should have kept his cow in her pen.
- ☐ B. He should make restitution amounting to twice the value of the cow.
- ☐ C. He should buy the dead cow from his neighbor for the same amount a live cow would have brought in the market.
- ☐ D. They should sell the carcass to a foreigner and divide the money equally between them.

Read Exodus 21:33–34 to see if your choice was correct.



Under God's Law would the owner of this public walkway be held liable if a pedestrian fell from it and injured himself? Verify your answer by reading Deuteronomy 22:8.

CASE 3

Shelemiah was too poor to buy his own plow. At planting time he asked Hazei, a man who lived down the road, if he could use one of his plows. Hazei had one which he agreed to rent Shelemiah for a half-shekel. When Shelemiah paid him, Hazei said he could come for the plow at sunup.

About noon the next day while Shelemiah was plowing, he accidentally ran the rented implement into a large rock buried in his field and broke the plow. When he returned the plow, Hazei was angry. He said it could not be fixed and that he could not afford a new plow. He claimed that Shelemiah had to pay him the price of a new plow.

What does Shelemiah owe for the broken plow according to Scripture?

- ☐ A. He owes nothing.
- ☐ B. He should pay the amount of the rental fee again to compensate for Hazei's loss.
- ☐ C. If the plow was an old one and likely to break, Shelemiah should not have to pay for it.
- ☐ D. He should pay to replace the plow.
- ☐ E. Hazei should refund half of the rental fee because Shelemiah was able to use the plow only half a day.

Exodus 22:14–15 will tell you whether you are right.

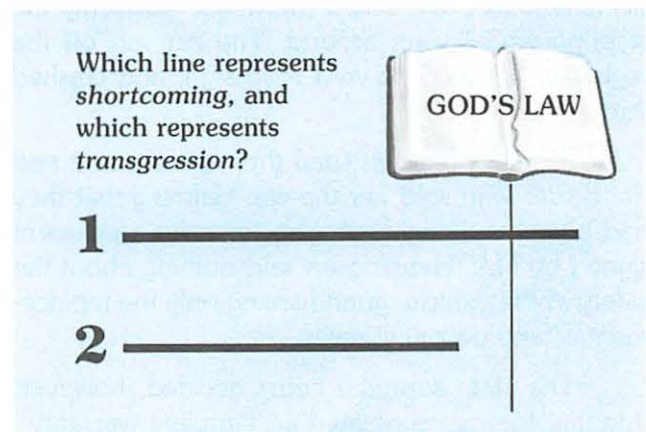
The basic principle of responsibility can be deduced from these and other case laws in Scripture. (See Leviticus 24:18; Numbers 5:6–8; and Exodus 21:26–32.) Generally, God's Law holds a man accountable for loss or injury that is caused by his own actions, his negligence, or his possessions.

God is the One Who gives the Law; therefore, it is to Him that a man is ultimately accountable—not to his fellow citizens or to the government. In a humanistic system in which every man, in effect, becomes his own god, there is a breakdown of responsibility. A god is answerable to no one; instead everything is accountable to him.

God's Law holds man responsible but puts certain limitations on his liability to others. These limitations are designed to restrain his desire for revenge and his own evaluation of his damages. In

contrast, a member of a humanistic society who thinks he is his own god will tend to put an infinite value on himself. For this reason contemporary judges and juries keep giving bigger and bigger awards for damages in liability cases.

The two major ways today's liability rules violate God's Law are contradictory: on one side they go too far, while on the other side they do not go far enough. Two Biblical terms for "sin" aptly describe this inconsistency: *transgression* (going beyond the limits of God's Law) and *shortcoming* (not measuring up to the standards of God's Law). (See *Wisdom Booklet 18, Power through Precision*, to review these terms and two others that describe ways of violating God's Law.)



These lines illustrate the two ways the new tort law system violates the Scriptural principle of responsibility.

1 TORT ABUSE VIOLATES SCRIPTURE BY GOING BEYOND GOD'S LAW.

Most instances of civil (as opposed to criminal) wrongdoing used to be resolved under the law of contracts. Whenever two individuals had a legal relationship to each other (such as employer to employee, doctor to patient, landlord to tenant, and buyer to seller), there also existed a contractual agreement, either written or verbal.

The basic concept of contract law is that the courts will hold people responsible for keeping promises they willingly make. A contract spells out the responsibility (liability) of each party, so the violation of the terms of a contract is not a tort. The purpose of tort law is to determine who is liable (and to what extent) for a loss or injury in which no contract binds the people involved.

The "right to sue" can be extended only at the expense of the "right to contract." Thus, the recent

expansion of liability has come about by a “tort invasion” of the province of contract law. The new liability rules transgress, or go beyond, God’s principle of responsibility by imposing obligations where neither statute nor contract impose them.

1 Tort abuse transgresses by extending a warranty beyond the terms of the contract.

One of the cases which set an early precedent of this type was a lawsuit filed by Mrs. Helen Henningsen of New Jersey. One day in 1955 she was driving along in her brand-new car when she heard a loud noise under the hood. Suddenly the steering wheel spun around. The car ran off the highway, knocked down a road sign, and crashed into a wall.

Mrs. Henningsen sued the manufacturer and the dealer who sold her the car, claiming that they had both been negligent. Yet, the sales agreement signed by Mrs. Henningsen said nothing about the safety of the vehicle, guaranteeing only the replacement of any defective parts.

The state supreme court decided, however, that this contract contained an “implied warranty” that the car was properly manufactured and safe to drive. Even though she was unable to prove negligence, Mrs. Henningsen won. By ruling in her favor, the court declared that the seller was, in effect, guilty of breach of contract (*Henningsen v. Bloomfield Motors*, 1960).



If this family decides to buy a new car from this salesman and later has an accident in it, they might (based on the *Henningsen* ruling) be able to recover damages from the dealership even though there is no implicit guarantee of safety.

The concept of an implied warranty was not new. Judges had used it in food and drug cases for several decades, but after this ruling it quickly came to be applied to practically every other type of consumer product. Unless safety factors were specifically mentioned in the sales agreement or advertising, the courts assumed that the seller promised a risk-free product.

Soon contracts came to be written much more precisely. Sellers carefully included express disclaimers to indicate clearly what they were not promising to the consumer. A variety of arguments was used to by-pass these disclaimers so plaintiffs could still recover damages.

2 Tort abuse transgresses by imposing an obligation which the contract specifically excludes.

Some of the clever approaches accepted by juries and judges in the 1960s included claims that disclaimers were not properly negotiated or had not been brought to the buyer’s attention forcefully enough. At times a court would invalidate an entire contract (including the disclaimers, of course) based on some technicality which had nothing to do with promising that the product was safe to use.

The defendants (sellers and manufacturers) learned quickly from their defeats. They continually refined and perfected their contracts until it became nearly impossible to find legal loopholes in them. Yet, this effort did not slow the relentless expansion of tort liability.

In fact, the expansion gained considerable momentum from a precedent set in 1966 in another automobile lawsuit case. Mr. Chester Vandermark bought a new car from a dealer near Los Angeles in 1958. The contract he signed specifically stated: “Dealer’s obligation under this warranty is limited to replacement, without charge . . . of such parts . . . acknowledged by Dealer to be defective. . . . This warranty is expressly in lieu of all other warranties, expressed or implied, and of all other obligations on the part of the Dealer.”

A month and a half later as Mr. Vandermark was driving across the California desert, the new car’s brakes failed, and as a result, the car crashed into a telephone pole. Both the driver and his sister were seriously injured.

Mr. Vandermark sued the car dealership to recover medical expenses and lost income, claiming that he had been sold an unsafe vehicle. In court the

company argued that under the terms of the contract the buyer had signed they were not liable except to replace the defective brakes.



UPI-Bettmann Newsphoto

Defective brakes were to blame for this wreck. Should the dealer, who had limited his obligation to replacing defective parts, be required to pay the accident victim's medical and other expenses in spite of the contract?

When the case was finally settled by the state supreme court in 1966, however, the car dealer was shocked by the ruling which was handed down. The judges considered it "immaterial" that the dealership had explicitly restricted its contractual liability to Mr. Vandermark.

Deliberately setting aside the terms of the contract, the court held that the company was subject to strict liability (*Vandermark v. Ford Motor Co.*, 1963). The dealership had to pay damages simply because it was "an integral part of the overall producing and marketing enterprise that should bear the cost of injuries resulting from defective products."

3 Tort abuse transgresses by doing away with "fault" as an essential aspect of liability.

While the courts were busy setting aside contracts, they were also in the process of doing away with one of the rules of tort law which had been in use for hundreds of years. This rule stated

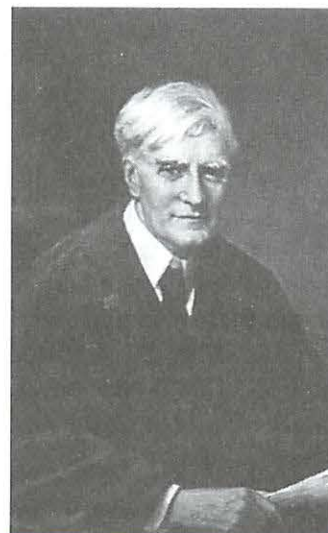
that a person could not be held liable for damages unless he was shown to be at fault. "At fault" meant that he had in some way caused loss or injury by malicious intent or by negligence.

In product liability cases, negligence, rather than malicious intent, was usually the issue being considered. *Negligence* is a somewhat fuzzy legal term because it is defined in such equally fuzzy terms as "a lack of ordinary prudence." Thus, it tends to be difficult to prove in court.

In order to circumvent this barrier to expanding tort liability, lawyers and judges began to focus on product defects rather than manufacturer negligence. Two landmark cases, separated by nearly half a century, clearly illustrate the impact of this difference in approach.

The first case is significant because it was the first time a court applied negligence standards to a manufacturer. One summer day in 1911, Mr. Donald MacPherson's car was found bent around a telephone pole near Saratoga Springs, New York. Mr. MacPherson himself was found "under the hind axle of the machine." He was rescued from that trapped position "with some difficulty," and he lived to bring suit against the manufacturer, claiming that the accident was caused by the collapse of the wooden spokes on one of the car's wheels (*MacPherson v. Buick Motor Company*, 1916).

Because Mr. MacPherson had purchased his car from an independent dealer, there was no contract between him and the automaker. The state supreme court nevertheless ruled that the manufacturer was negligent for failing to inspect the wheels. This assignment of liability was in harmony with the common-law conception of responsibility.



Library of the Supreme Court of the United States

Benjamin Cardozo, later a Justice of the U. S. Supreme Court, wrote in the New York Supreme Court ruling in *MacPherson*, "If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made . . . , the manufacturer of this thing of danger is under a duty to make it carefully."

In the second case, however, the California Supreme Court found a manufacturer liable on totally different grounds. Mr. William Greenman enjoyed woodworking. One day he was using a power tool his wife had given him for Christmas—a combination saw, drill, and lathe. He was making a wooden chalice on the lathe when a piece of wood thrown out of the machine hit him on the forehead.

His suit against the manufacturer alleged that the setscrews used to hold the tool together were improperly installed. They had been loosened by normal vibrations, allowing the tailstock to move away from the lathe so the piece of wood could fly off (*Greenman v. Yuba Power Products, Inc.*, 1963).

In this case there was no contract because Mr. Greenman was not the one who actually bought the piece of equipment, so the judges could not focus on an implied warranty. Negligence was too slippery a notion to use for blaming an employee of the company, so the court decided to impose strict liability solely on the basis of a “defect in manufacture” of the product. The significance of *Greenman* was that a manufacturer or seller could be held liable even if not at fault. All the plaintiff had to do was prove that the product was somehow defective, for whatever reason.

4 Tort abuse transgresses by placing the blame on those who can “afford” to pay damages.

Another example of a strategy the courts have used to impose responsibility on defendants who were not at fault (except minimally or very indirectly) is the concept of joint-and-several liability, a legal doctrine which allows a person who has suffered a tort to bring a single suit against (and recover damages from) all the parties whose actions contributed to his loss or injury.

Under the common law this rule served the important function of not allowing one major wrongdoer to avoid his responsibility just because someone else was involved in the causal chain of events leading to the accident. Joint-and-several liability also means that any one of the various defendants can be held liable for the full amount of damages even though his share of the blame may be relatively small compared to the others.

Recently judges have tended to allow plaintiffs to use joint-and-several liability as a means of

exactng compensation even when the person who was really to blame for the harm cannot afford to pay or has no insurance. They conclude that it makes no sense to sue the indigent individual who really caused an accident when this rule makes it possible to collect instead from the so-called “deep pockets” of the government or a large corporation.

For example, in the 1984 case of an accident caused by a young man who was on drugs and ran a stop sign, the victim knew there was little chance of recovering anything from him. The lawsuit, therefore, named the city as defendant.

The only basis for holding the city liable was the remote possibility that some overgrown bushes near the intersection had obstructed the driver’s vision and, thus, contributed to the accident. The award of well over \$2 million was paid mostly by the city.



Supreme Court of the United States

Oliver Wendell Holmes (1841–1935) served as an associate justice of the U. S. Supreme Court for thirty years. His comments about tort liability, though written more than one hundred years ago, are quite perceptive in light of what is happening today.

The way the new concept of tort transgresses the Biblical and common-law view of responsibility was aptly summarized by Oliver Wendell Holmes in 1881 in his classic book *The Common Law*: “Unless my act is of a nature to threaten others, unless under the circumstances a prudent man would have foreseen the possibility of harm, it is no more justifiable to make me indemnify [pay damages to] my neighbor against the consequences, than . . . to compel me to insure him against lightning.”

Justice Holmes foresaw that “the state might conceivably make itself a mutual insurance company against accidents, and distribute the burden of its citizens’ mishaps among all its members.” One century later, our legal system has opted to jilt the common law for the new humanistic approach to torts and is quickly turning that hypothetical conception into a reality.

Definitions

NEGLIGENCE: (From the Latin *neglegere*, “not to heed”) The failure to use such care as a reasonably prudent and careful person would use under similar circumstances, or the doing of some act which such a person would not have done under those circumstances.

JOINT-AND-SEVERAL LIABILITY: A legal precept that allows a person who has been wronged by the actions of two or more parties to sue all of them separately or in a single suit. Each defendant is held liable for the full amount of damages.

FAULT: (From the Latin *fallere*, “to deceive”) An error or defect of judgment or of conduct; any deviation from prudence, duty, or rectitude.

STRICT LIABILITY: (From the Latin *stringere*, “to draw tight”) The legal doctrine whereby a manufacturer or seller is liable for any and all defective or hazardous products which unduly threaten a consumer’s personal safety.

2 TORT ABUSE VIOLATES SCRIPTURE BY FALLING SHORT OF GOD’S LAW.

The same changes that have allowed the new tort system to go beyond the principle of responsibility in assigning liability to defendants have caused the system to fall short of that principle where the liability of plaintiffs was concerned.

1 Tort abuse falls short by penalizing the innocent in order to compensate one who broke the law.

Early one morning a man who had been drinking all night was driving down a Louisiana highway at a speed of over 100 miles per hour. When the tread on one of the tires began to unravel, the driver lost control. The car crashed, killing him and severely injuring his passenger.

A lawsuit was filed against the tire manufacturer because the company knowingly sold tires with a maximum safe speed of 85 miles per hour to the carmaker, who knowingly installed them on a vehicle which could go faster than that (*LeBeouf v. Goodyear Tire and Rubber Company*, 1978).

Despite the fact that the man had irresponsibly broken the law both by driving while intoxicated and by exceeding the posted 55-mph speed limit, the case was decided in the plaintiff’s favor. The court declared that the drunkenness of the driver was irrelevant because the same thing could have happened even to a sober driver.

In essence, this verdict and others like it have communicated the message that under our legal system individuals do not have to act responsibly. In the wake of the precedents set in the 1960s, the courts have become more inclined to scrutinize a vehicle, drug, or appliance (in order to discover a defect) than to examine the behavior of the consumer (to see if he was negligent).

The tendency to blame the product rather than its user follows logically from the notion that personal responsibility is irrelevant. The reasoning is that if the defendant’s negligence does not change the assignment of liability (he is liable whether negligent or not), then the plaintiff’s own negligence need not be considered either (he is not liable even if he is negligent). If a manufacturing firm takes or is forced to take *all* the responsibility for an accident involving its product, then the consumer logically takes no responsibility.

2 Tort abuse falls short by sacrificing justice for the sake of the myth of fairness.

Under the old rules of tort law, if a person willingly accepted an obvious risk or if his own negligence contributed to an accident, he was not allowed to collect damages.



A customer who was injured in the work area of this garage would probably not have been able to recover damages under the old tort rules. Ignoring the sign would make him “contributorily negligent.”

In the past it would have been highly unusual, for example, for a court to rule in favor of a pedestrian who chose to take a shortcut through a fenced-off construction site and was hit on the head by falling debris. Nor could a drunken driver hope to win a liability suit against the manufacturer of the automobile he wrecked.

In recent years, however, courts have awarded substantial damages even in cases in which an accident or injury was the victim's own fault. The old rule of *contributory negligence* said that a plaintiff would be awarded no compensation if his own negligence was shown to have contributed to the accident. In the interest of fairness, the courts formulated a new rule of "comparative negligence," which said that if a plaintiff was only partially to blame for the loss or injury, his award would be reduced by an equivalent percentage.

In practice this meant that sympathetic juries could financially reward people who acted foolishly and then sued because they were hurt. For example, a man who put his son's head between the blades of a ceiling fan and then ran the motor was allowed to collect damages for the child's injuries. The manufacturer was held liable because there was no warning concerning that particular hazard.



Chicago Transit Authority

A man deliberately threw himself on the tracks in front of a subway train and sustained multiple injuries. Claiming that the engineer should have stopped sooner, he sued and won. Although the award was reduced according to his share of responsibility for the "accident," he still received \$650,000.

When a Pennsylvania farmer shopped for a skid-loader to use in his barn, he discovered that the particular model he wanted came equipped with a protective cage around the driver's seat. The cage

made the loader too tall to fit through his barn doors, so he asked the manufacturer to remove it.

The company honored the request but was later found liable when the man was accidentally crushed while operating the machine. Because the standard cage—had it been in place—would have prevented his injuries, the court ruled that the machine was defective as delivered (*Hammond v. International Harvester Co.*, 1982).

Although the rule of comparative negligence may have been intended to punish all responsible parties fairly, what it actually does is unjustly reward the irresponsible. Rulings and awards based on it have given people a greater incentive to use legal action to unleash their judgmental feelings.

3 Tort abuse falls short by blaming the design of a product rather than the one who abuses it.

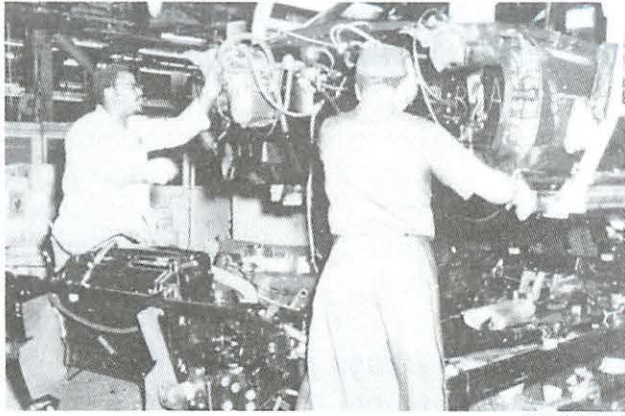
When lawsuits began to multiply, the judiciary should have heeded the Scriptural warning that releasing a man from the consequences of his own wrong actions encourages further irresponsible behavior. (See Proverbs 19:19.)

Instead, humanistic judges looked for additional ways to shift responsibility from plaintiffs onto defendants. One of the most effective ways they found was to expand the definition of "defective" as the term applied to consumer products.

In the case of Mr. Greenman and his lathe, strict liability was imposed because of a defect in construction. (Something was done improperly in the process of making and assembling the machine.) Defects of this type tend to be relatively rare, but other plaintiffs soon realized what a powerful litigation tactic they would have if they could argue that the *design*, rather than the actual *construction*, of the product was at fault.

The first time a state court was willing to accept this argument was in a 1968 case in which the owner of a popular rear-engine compact car claimed that the design of its steering column exposed the driver to "an unreasonable risk of injury" in a head-on collision.

When a federal appeals court decided to accept this line of reasoning, it opened the floodgates to all kinds of design-defect suits. Now over 80 percent of product liability cases deal with defects in design rather than with manufacturing defects.



Bureau of Labor Statistics

When a court imposes liability for a manufacturing defect, only one item is affected, but a design-defect verdict condemns a whole line of products.

Product designs have been found to be defective for a variety of reasons. In some cases designers chose to leave off a particular safety feature. An example is the case of Mr. Doyle, whose job was operating a large machine in a factory. The huge gears of the machine were originally covered by a strong metal panel. However, in order to make repairs, some other employees had removed the panel. Instead of reinstalling it, they had put a piece of cardboard in its place.

After Mr. Doyle turned the machine back on, he stepped onto the cardboard and fell right through it into the gears. As a result of his injuries, he lost his leg. He sued the manufacturer on the grounds that the machine should have had an automatic locking device which would prevent it from starting without the gear panel in place. The jury awarded him \$750,000.



Ernst Gallowsky

In another suit, a jury held that product design was to blame for the death of the driver of a compact car. The woman ran into a horse, and the animal jumped up onto the roof of the car, which then collapsed. The jury agreed that the manufacturer should have foreseen this possibility and designed a stronger roof.

These types of cases raise the question of how strong is strong enough or how many safety features make a device safe enough. Under the old tort rules, the plaintiff had to prove that the product was unreasonably hazardous, but in 1978 the California Supreme Court set a new precedent. Now the defendant bears the *burden of proof*, which means he must convince the court that there is no feasible design which would have made the product safer (*Barker v. Lull Engineering*, 1978).

This requirement is virtually impossible to fulfill, because designers must consider other aspects of a product besides safety. Thus, they almost always can think of ways to make a product safer but must choose not to incorporate some of these features because doing so would make the product too expensive or inefficient. It is easy for jurors, who can ignore the marketability of an item or the need to make a profit on it, to find fault with the design.

Because of increasingly complex technology, trials involving design defects become exhausting and expensive courtroom battles as each side summons a series of expert witnesses to present mountains of evidence, most of which is incomprehensible to the average juror.

4 Tort abuse falls short by considering the product defective when the user ignores safety warnings.

When trials began to focus on product warnings, which juries *could* understand, a new rule emerged. It said that if the consumer was not properly warned about the hazards of using (or misusing) the product, then the product itself would be considered legally defective.

Even though there was nothing wrong with the product itself, a plaintiff could claim that it was defective because of an inadequate warning. If asked to explain what made a warning "adequate," he could simply point to the fact that an accident had occurred as proof that the warning was not sufficient.

Certainly manufacturers have long been (and should be) held responsible for providing the consumer with full information about the risks of what he is purchasing, but this interpretation opened up a convenient new avenue for litigious people to use in avoiding responsibility for their actions.

One summer evening a teenager and her friend were chatting as they sat on the couch in

her basement. On a shelf behind them a small candle was burning. The girls started talking about whether or not it was scented. Out of curiosity, the girl got a bottle of cologne and poured a few drops on the candle to see if it would "make the room smell better."

Before she even knew what was happening a burst of flames severely burned her friend. The cologne company was held liable. Even though it was obvious that the product contained alcohol, which is highly combustible, there was no warning on the label about its flammability (*Moran v. Faberge, Inc.*, 1975).

A mother fed her sixteen-month-old child a peanut butter sandwich, and the toddler choked on it. The mother sued the company which made the peanut butter because there was no warning on the label (*Fraust v. Swift & Co.*, 1985).

For allegedly failing adequately to warn against the hazards of a playground slide, the city of Chicago paid a two-year-old child \$1.5 million in an out-of-court settlement rather than risk a jury verdict for an even greater amount.

A man who struck a match to check the fluid level in his car battery was severely injured when it exploded. The battery had a warning printed on it in large letters, but the jury awarded damages on the basis of inadequate warning.

Thus, the courts themselves foster tort abuse both by going beyond God's standard and by falling short of it. A final example which clearly illustrates this tendency to place too much responsibility on defendants and too little on plaintiffs is the *collateral source rule*.

This rule states that if an accident victim was covered under his own insurance policy, the person or company he is suing cannot mention this in court. Thus, the defendant is forbidden to use the fact that the plaintiff had insurance and may have already had his medical expenses paid to argue that he should not collect damages or that the amount of the award should be reduced.

What the courts seem to be saying by vigorously enforcing this rule is that even if someone has taken personal responsibility by purchasing adequate insurance coverage, it does not really matter because he is not going to be held responsible anyway. As one critic put it, "Relying on the victim's own insurance seemed too much like blaming him for the accident itself."

TORT ABUSE BRINGS JUDGMENT ON OUR LAND IN THREE MAJOR WAYS.

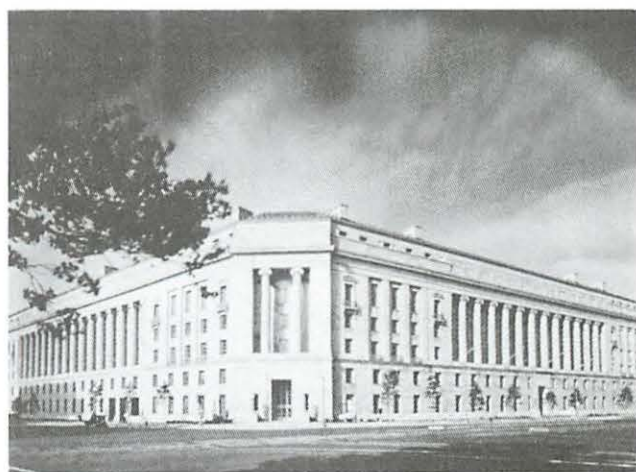
Scripture indicates that those who ignore Christ's warning not to have a judgmental spirit will become the victims of their own litigiousness: "*For with what judgment ye judge, ye shall be judged: and with what measure ye mete, it shall be measured to you again*" (Matthew 7:2).

1 Tort abuse brings judgment by hindering speedy justice as the courts are clogged with lawsuits.

As the judgmental, blame-oriented attitude Jesus warned against in Matthew 7:1 has been allowed to run rampant in the courts, the legal system has become deluged in suits.

In the decade of the 1970s our population increased by only 9 percent, but the number of civil cases filed in U. S. district courts increased by a whopping 93 percent. By 1980 nearly 169,000 such cases were being filed annually. Only one year later that number had jumped to 180,000. In 1986 a total of 254,828 lawsuits were filed in federal courts.

A Department of Justice report issued that year stated that the number of product-liability cases alone had risen by an incredible 758 percent. In a period of four years (1982–1986) the number of damage claims filed against cities increased by 100 percent. More medical malpractice suits were filed during the decade ending in 1987 than in the entire history of American tort law until that time.



George Washington University

In the mid-1980s, the U. S. Department of Justice conducted an in-depth investigation which documented the extent of the litigation explosion and concluded that it was not a myth created by the insurance companies, as some were claiming.

Nationwide, one of every fifteen Americans filed a civil suit of some kind in 1984. This litigation explosion has been a major factor in creating a judicial logjam. In 1987 around 20,000 cases on the federal docket had been awaiting trial three years or longer.

The problem, according to Supreme Court Justice Antonin Scalia, is that American judges are having to deal with "more and more cases of less and less import." Inundated with civil cases, many courts simply cannot operate efficiently. As a result, litigants routinely have to wait months or years for disputes to be resolved.

On the other hand, the simultaneous trend toward settling out of court also indicates flaws in the system. By the early 1980s nearly half of the civil cases in the federal district courts were being settled without court action. At the same time the number of cases actually coming to trial had declined to less than 7 percent.

While out-of-court settlements are better both for the government and for litigants, many of them come only after the parties have already spent thousands of dollars and perhaps years preparing their cases for trial. These statistics suggest that the court system is failing to resolve legal disputes as fairly and efficiently as it should.

The proliferation of these types of suits means that those who have truly been wronged have less access to the court system. The delays caused by overcrowded dockets do much more harm to a plaintiff who needs money right away than to a wealthy defendant who can afford to wait years for a case to be settled. Studies show that when money does finally change hands, people who were only slightly injured tend to be overcompensated, while those who suffered economic losses exceeding \$25,000 recover only 30 percent.

"The legal explosion," writes a former Attorney General, "has also damaged the quality of the justice that is dispensed." He claims that in order to cope with the caseload, an increasing number of judges are relying on law clerks to draft the opinions that get published. The result is that relatively inexperienced student lawyers are the ones interpreting the law.



Antonin Scalia

The plethora of lawsuits may be contributing to the increase in crime as well. Judges are so busy with complicated civil suits that they do not have time to devote to important criminal cases.

2 Tort abuse brings judgment by inducing people to blame others for what is their own responsibility.

Legal professionals maintain that one of the most important functions of tort actions is that of educating the public as to what is acceptable behavior under the law. Tort abuse is demonstrating to people today that litigiousness is not only acceptable but even profitable.

The increased probability of financial gain encourages people to try to find someone to blame for practically any mishap. In the 1960s a plaintiff in a product liability case had a 20 to 30 percent chance of winning his suit. Twenty years later that chance was up to 50 percent.

The first jury award exceeding one million dollars came in 1962. During the rest of that decade, million-dollar awards were relatively rare, totaling only 8 percent of all money awarded. In 1975 there were still fewer than twenty such verdicts, but by the end of the 1970s awards of one million dollars or more accounted for nearly half of all damages awarded.

During the fourteen-year period ending in 1985 a total of 1,624 awards of one million dollars or more had been given. By 1988 over 400 such awards were being given every year. The average amount a plaintiff in the 1980s could expect to be awarded was \$250,000. Allowing for inflation, that amounts to five times more than plaintiffs received on the average in the 1960s.

With this amount of money at stake, it is not surprising that more and more Americans decide to go to court, but the dramatic rise in the number of lawsuits is only part of the problem. The increase in *frivolous* suits is especially alarming. A frivolous suit, as defined by a typical state law, is one based on claims that are "made without reasonable cause and found to be untrue."

Most states have laws which allow courts to charge the defendant's legal fees to the plaintiff who brings a frivolous suit. Judges have rarely needed to apply these laws, however, until recently when cases like the following have become commonplace:

- Two men were unhappy with a certain restaurant's dress code. They did not like wearing neckties, so they sued and won \$18,000.

- A group of football fans, upset when a referee's call cost their team a game, filed suit in federal court demanding that it be overturned.
- A nine-year-old girl sued because her box of popcorn did not contain the promised prize.
- Someone sued General Motors for making vehicles that pollute the atmosphere. The six-trillion-dollar class-action suit was seeking damages for "all persons everywhere now alive and all future unborn generations."

Even more disturbing, however, are the suits which not only are frivolous but also seek to blame someone else for what is clearly the plaintiff's own responsibility. Here are some examples:

- A student sued his university for \$853,000 when he got a low grade in a foreign language course.
- When a ten-year-old boy who was "playing hooky" from school was hit by a motorcycle, a court ruling allowed him to sue the school for not preventing him from skipping class.



A girl broke her finger trying to catch a pop fly during a school softball game. Her parents sued the gym teacher, claiming their daughter had not been properly coached.

The attitude of blaming has also created a climate of distrust within our society. This is easy to see in the field of medicine. Many people, including doctors and nurses, now hesitate to stop and render aid to someone who has been injured, for fear of being sued later. (See *Wisdom Booklet 29*, Law Resource, regarding "Good Samaritan" laws.)

Some doctors have started screening new patients in order to eliminate those who seem likely

to bring malpractice suits. Afraid that a disgruntled patient will accuse him of not doing everything he could have done, a doctor may order unnecessary tests and treatments in preventive self-defense. Some physicians refuse to perform certain types of procedures rather than risk a lawsuit.

The American Medical Association says that 30 percent of the surgeons they polled limit the number of high-risk patients they will accept. A Florida woman who had a gunshot wound in the back waited thirteen hours before doctors were able to find a hospital where a neurosurgeon was willing to treat her.

Litigiousness ultimately imposes certain limitations on individual freedoms. Recently a number of people who seem more like plaintiffs have turned up as defendants in what have been termed "intimidation lawsuits."

A high school teacher in a small Missouri town wrote a letter to the local newspaper complaining about an incinerator. She thought that the burning of hospital waste constituted a health hazard. The facility was closed down, but a year later the operator filed a million-dollar libel suit against the teacher. Whether or not such suits are won, these cases inevitably have a chilling effect on the exercise of First Amendment freedoms.

3 Tort abuse brings judgment by requiring everyone to pay for the irresponsibility of a few.

Perhaps the best way to understand the economic impact of the litigation explosion is to consider the new tort liability system as a kind of tax. It is like a tax which everyone pays through higher prices and inflated insurance premiums but from which only a few receive any benefit.

This hidden "tax" imposes a significant financial burden on both citizens and businesses. By 1988 it was costing individuals, corporations, and local governments at least \$80 billion a year. One estimate of the annual indirect cost is \$300 billion. It is a highly regressive "tax," in that the bulk of it is collected from those families and small companies who can least afford to pay it.

The tort tax is assessed in a variety of ways. For example, nearly one-third of the price of an ordinary stepladder goes to pay it. It accounts for 25 percent of the cost of a ticket on a Long Island tour bus and an incredible 95 percent of the cost of vaccines for childhood diseases. Families who have

a baby in the hospital are automatically assessed an extra \$300 in medical fees.

In addition to the financial impact, this kind of taxation also curtails many of our freedoms. For example, because of this tax, children in Denver may not go sledding on hills in the city parks. In other cities the tax has forced the closing of public beaches and ice skating rinks. Americans who suffer from a rare stomach disorder called *hyperemesis* (HY-per-EM-eh-sis) are not allowed to purchase the medication which the Food and Drug Administration has certified as safe and effective in treating it.

It is difficult to measure precisely any single effect of this tort liability tax on the nation's economy as a whole, but the overall impact is clearly detrimental.

One of the most obvious effects of more litigation, although not solely caused by it, is the sharp rise in the cost of liability and malpractice insurance. A company which operates seven day-care centers in a New England town was shocked to find its liability insurance premium had jumped from \$400 one year to \$2,400 the next.

Many physicians, especially obstetricians, have watched in dismay as their malpractice premiums doubled or tripled in one year, only to see the same thing happen again the following year.

It is, of course, patients and consumers who must foot the bill by paying significantly higher prices for goods and services. Because premiums continue to skyrocket and insurance companies often refuse to sell coverage at any price, certain products and services are no longer available.

For example, a commuter tramway in New York was temporarily closed down when the insurance company hit the city with a fivefold increase in premiums. As a result three thousand daily passengers had to find some other way of traveling from Roosevelt Island to Manhattan.

A businessman bought a firm which manufactured football helmets. He had to sell it only seven months later without ever having produced a single helmet. The problem was insurance. The company had annual sales of \$8 million, but to get liability coverage would have cost \$3 million a year.

A nationwide Chamber of Commerce survey revealed that 40 percent of its members were facing premium increases of 100 to 500 percent in the mid-1980s. Another 20 percent were unable to renew their liability coverage.

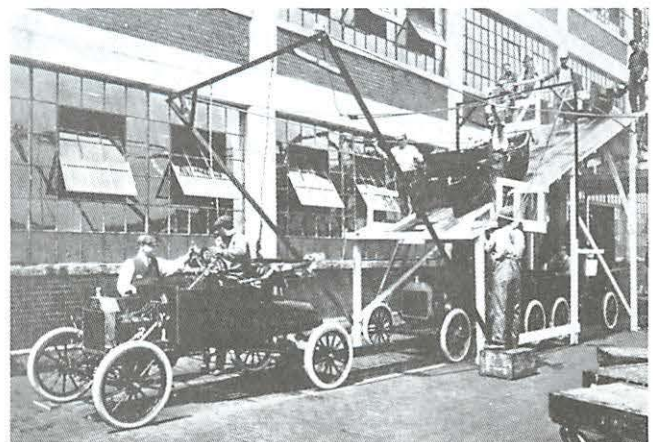
The increases took their toll, especially on small firms. In 1986, for example, approximately 1,300 trucking companies went out of business because insurance had become unaffordable or unavailable. Most of these were independent, local businesses which owned only one or two trucks.

One of the major economic effects of this combination of higher insurance rates and fear of litigation is that the development of new, innovative products is discouraged. This is ironic because one of the goals of those who have led the courts in establishing the new liability system was to get manufacturers to design and build safer products.

Yet, the new tort rules are a disincentive to innovation in two ways. First, under these rules new products always tend to attract more lawsuits, because they do not yet have an established record of safety. Businessmen shun this kind of unpredictability because it generates more risks than profits.

Secondly, the new rules have made innovation self-incriminating. If a manufacturer introduces a new item which is safer than the previous version, plaintiffs can claim that the old product was defective. The existence of the new product proves that the old one could have been made safer and, thus, the company is liable for not doing so.

The head of one company that makes vaccines made a comment which typifies the attitude of business and industry: "Even when we feel we have made some discoveries which might constitute a breakthrough, the risk has often become so great that our discoveries can't be implemented."



If present conditions of product liability had prevailed in the early years of this century, it is doubtful that these Model Ts would have ever rolled off Henry Ford's assembly line as they did in 1913.

Finally, the economic impact of the tort tax is evidenced in the U. S. balance of trade. Businesses in other countries do not have to worry about the "litigation overhead" which is inescapable for U. S. firms. In Japan, for instance, litigation tends to be relatively rare. The Japanese usually resolve disputes by alternative methods that are much less costly and time-consuming than the lawsuits which are so common in American business.

Because many foreign nations take a more realistic approach to liability matters, American companies are having an increasingly difficult time competing both in domestic markets and abroad. This is like one of the judgments about which Moses warned the people of Israel: *"The stranger that is within thee shall get up above thee very high; and thou shalt come down very low. He shall lend to thee, and thou shalt not lend to him..."* (Deuteronomy 28:43-44).

PROJECT 1

Read through the book of Proverbs to find as many verses as you can that warn against having a litigious spirit.

PROJECT 2

Research the new tort liability rules concerning awards for psychic injuries, pain and suffering, and punitive damages. Discern how these trends violate the principles for making restitution given in Numbers 5:5-8 and elsewhere in Scripture.

PROJECT 3

Study the following Scriptures, and relate them to the levels of cause and effect on the chart below. Then list the attitudes and their consequences in the appropriate columns. Finally, read the passages from James to find practical applications.

Scriptural Principles

Proverbs 19:3
I Corinthians 6:7; 11:31
Hebrews 12:15
Romans 2:1; 14:10

Attitudes

Resisting God's grace
Judgment
Litigiousness
Bitterness

Consequences: The rejection of . . .

God's design (for our relationships)
God's Law (principles for all of life)
God's plan (for our individual lives)
God's sovereignty (over all of life)

Scriptural Application

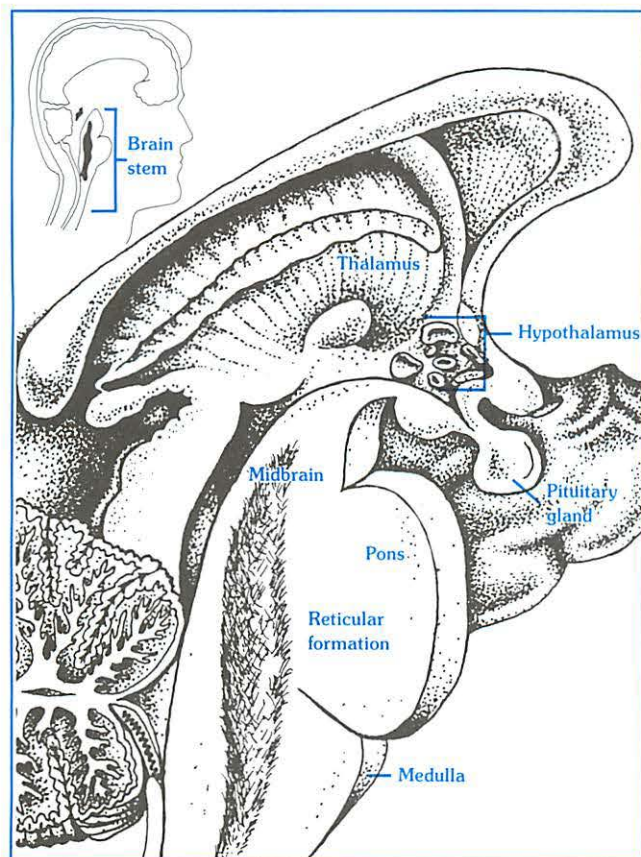
James 3:14
James 4:1-3
James 4:11-12; 5:9
James 4:13-16

LEVELS OF CAUSE AND EFFECT	SCRIPTURAL PRINCIPLE	AN ATTITUDE OF	LEADS TO	THE REJECTION OF	SCRIPTURAL APPLICATION
Surface Problem	I Corinthians 6:7; 11:31	Litigiousness	→	God's design	James 4:1-3
Surface Cause	Romans 2:1; 14:10	Judgment	→	God's Law	James 4:11-12; 5:9
Root Problem	Proverbs 19:3	Resisting God's grace	→	God's plan	James 3:14
Root Cause	Hebrews 12:15	Bitterness	→	God's sovereignty	James 4:13-16

Date completed _____ Evaluation _____



HOW DOES THE RETICULAR ACTIVATING SYSTEM REQUIRE RIGHTEOUS JUDGMENT?



Have you ever wondered why when you buy a new item you begin to notice that many other people have the same item? The answer is found in the function of the reticular activating system at the base of your brain. Righteous judgments turn it “on” for verification, and unrighteous judgments turn it into a false witness.

Our brains work in such a way that we see what we expect to see! For example, a hunter who never expects to see a deer rarely sees one. A stranger suspected of being a thief appears to behave like one. A friend’s rebuke is appreciated as an act of kindness, while an enemy’s compliment is taken as an insult.

In reality, the human brain sees what it wants to see. It actually censors sounds, sights, touches,

smells, and tastes before “admitting” them for processing. Senses which do not fit a person’s preconceived judgments are rejected, while senses which conform to his expectations are welcomed and amplified.

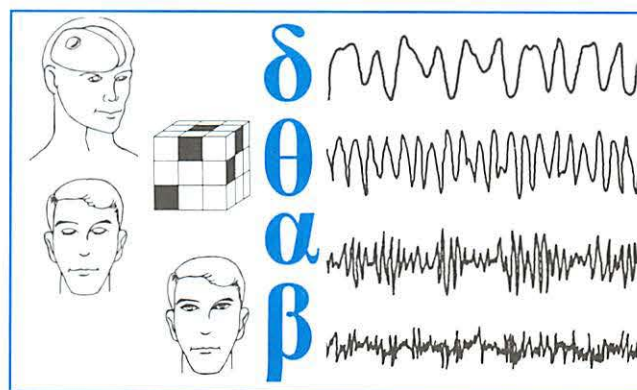
Learn how the complicated connections and intricate mazes of the brain blind us to what we do not want to see and alert us to the things we do want to see.

1 The brain turns itself “on” and “off” according to its own expectations.

Deep within the brain a small group of cells called the *reticular* (reh-TIH-kyoo-ler) formation works like a switch to turn the brain “on” and “off.” A person falls asleep when the reticular activating system turns his brain “off,” and he returns to wakefulness when it turns the brain back “on.”

The reticular formation, which is no bigger than a little finger, is a complex web of neural fibers running up and down the base of the brain. The term *reticular* comes from the Latin word *rete*, meaning “net.” It was named this probably because it looks like a net.

When a sleeping person is stimulated by a signal such as a loud noise, a flash of light, or a mild electrical shock, the reticular formation switches the brain “on.” The slow, rhythmic alpha brain waves characteristic of sleep then change into the rapid, choppy beta waves characteristic of wakefulness.

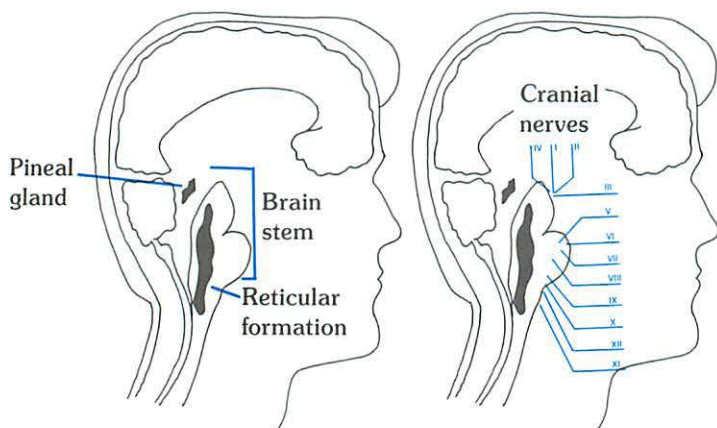


Researchers study brain waves by attaching small, sensitive electrodes to the scalp. These electrodes pick up the electrical activity of the brain. Different types of waves are named with Greek letters. Delta waves, for example, may reveal the presence of tumors. Theta waves reveal frustration. Alpha waves are characteristic of sleep, and beta waves are predominant during wakefulness.

These changing wave patterns spread out across the brain like little ripples in a pond. As the

brain awakens, it takes on a state of alertness which prepares it to function. Neurologists call this alertness *cortical tone*. Cortical tone is essential for thought. It works like the power supply of a computer to keep its circuits operating. Without sufficient “tone” the electrical patterns of the brain remain disorganized, unable to make associations, check mistakes, or maintain an intended course of action.

During waking periods the reticular formation adjusts cortical tone as needed. When a person concentrates or focuses his attention on a particular task, cortical tone increases. As a task is completed and the person relaxes, cortical tone decreases. The mere anticipation of an exciting event is enough to raise the cortical tone of the brain. On the other hand, judging a situation as “boring” reduces cortical tone and decreases the brain’s ability to attend to details.

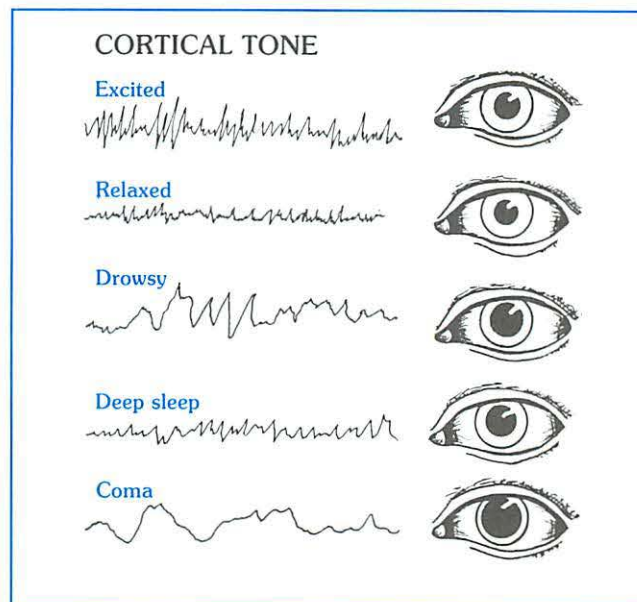


The reticular formation is strategically located next to the twelve cranial nerves. Branches from these nerves run through the reticular formation, allowing it to monitor the brain’s activity.

The *pineal* (PIE-nee-ul) *gland* tells the reticular formation when to turn the brain “on” or “off” or to “slow down” or “speed up.” The pineal gland is one source of a substance called *serotonin* (seer-uh-TOE-nin), which is found in high concentrations in this area of the brain. Serotonin levels increase and decrease according to a regular cycle. As serotonin builds up, it stimulates the reticular formation to produce greater cortical tone. Lower levels of serotonin result in less cortical tone, causing daydreaming, inattention, and sleep.

Even while a person is awake, his reticular formation causes periods of decreased awareness approximately every ninety minutes. While a person is sleeping, the reticular formation causes him to

move back and forth between periods of deep sleep, dreaming, and light sleep.



The reticular formation controls the cortical tone of the brain. This, in turn, affects the pupil of the eye as well as attentiveness to detail. If the reticular formation is somehow damaged, a person may lapse into unconsciousness or even into a coma. Unless the reticular formation can be restored, that person may never awaken.

Researchers suspect that making a judgment affects the relationship between the pineal gland and the reticular formation. A decision or judgment which calls for greater attention increases power in the brain by stimulating the pineal gland to produce more serotonin. Judgments which call for decreased attention literally dull the mind by reducing serotonin and, thus, cortical tone.

2 The brain alerts itself to significant incoming signals.

Studies of the human brain reveal that sensory nerves from eyes, ears, skin, and so on, route branching connections through the reticular formation. These connections alert the reticular formation to incoming signals even before they are perceived by the brain.

In many respects the reticular formation acts like a secretary who receives messages and attaches a priority to each message before passing it on to the boss. The most important messages receive the greatest attention, while less important messages must wait until later.

For example, a sleeping mother can hear the faintest cry of a baby, and a father may awaken

suddenly at the slightest whiff of smoke. The reticular formation identifies these signals as top priority and alerts the decision-making components of the brain to their presence.

Each different sensory input has its own neurons within the reticular formation. Sound triggers one type of cells, while sight, smell, pain, and taste stimulate other types of cells. However, because of the net-like nature of the reticular formation, any one of a person's senses can alert any of the other senses to prepare itself to receive important messages.

Perhaps you have experienced the sensation of anticipating the ring of the telephone. You know the telephone is going to ring before you hear the sound of the bell. This phenomenon is a result of the reticular formation. Signals carrying the ringing sound of the phone reach the reticular formation before they reach the brain. The reticular formation recognizes the sound of the phone, identifies it as an important signal, and alerts the brain to get ready. Cortical tone increases, and you anticipate that the phone is going to ring. All this happens before the sound signals actually arrive at the temporal lobe of the brain, where the sound is perceived and interpreted as "the telephone."



The reticular formation constantly monitors incoming signals even when the rest of the brain is concentrating on an important task.

The reticular formation also receives signals from receptors in the skin and raises a general state of alarm before a person's mind discerns the location of the change in feeling. A dozing driver may suddenly wake up as his reticular formation "realizes" that the car is headed for a ditch, or the unexpected touch of a hand on your shoulder may cause you to jump without knowing why.

As a good secretary, the reticular formation learns what the "boss" considers important. The secretary develops this awareness by remembering

what the boss has judged as important in the past. In essence, the reticular formation becomes a mirror of the brain's previous judgments. It identifies as important the very signals which have elicited alarm or attention at a prior time.



The reticular activating system also helps athletes to react without thinking. The reticular formation helps to short-circuit incoming signals so the brain can react automatically instead of having to think first.

3 The brain overlooks the familiar, the monotonous, and the dull.

The sounds of a person's breathing and heartbeats pepper the brain constantly. However, the brain pays little attention to these signals unless the reticular formation alerts it that something is wrong. While the reticular formation does not block any message completely, it does minimize those messages which it labels as unimportant.

Researchers have found that repetition is one factor which causes the reticular formation to ignore a stimulus. In fact, as few as ten to fifteen repetitions of a sound separated by one-second intervals may be enough to stop the alerting response of the reticular formation.

For example, a city dweller learns to ignore the worst imaginable traffic noise. However, when he visits a country cousin, he is kept awake by the incessant croaking of frogs. After several nights, his reticular formation learns to tune out the frogs just as it learned to tune out the traffic. Under these circumstances the reticular formation filters out monotonous signals while remaining alert for any signals which the brain judges to be important.

Events that are repeatedly judged as unimportant gradually lose their capacity to draw attention

to themselves. On the other hand, events judged to be important are highlighted and brought to a person's attention by the reticular formation. This observation suggests that the reticular formation is far more than merely a switch to turn the brain "on" and "off." It is, in fact, a highly directive and selective member which helps control the focus of our attention. It causes us to be alert to some things while overlooking others.

In instances in which the reticular formation and its connections have been damaged, a person often cannot carry on a conversation or complete the simplest task. He is so distracted by extraneous sights and sounds that he cannot "tune them out." Because every little noise demands such a person's complete attention, he cannot concentrate or filter out things that are unimportant.

On the other hand, a person deprived of stimulation, who cannot see, hear, feel, smell, taste, or move, begins to create his own imaginary sensations. Likewise, when we fail to see what we expected to see in a brother, our minds may begin to imagine things about him to keep occupied.



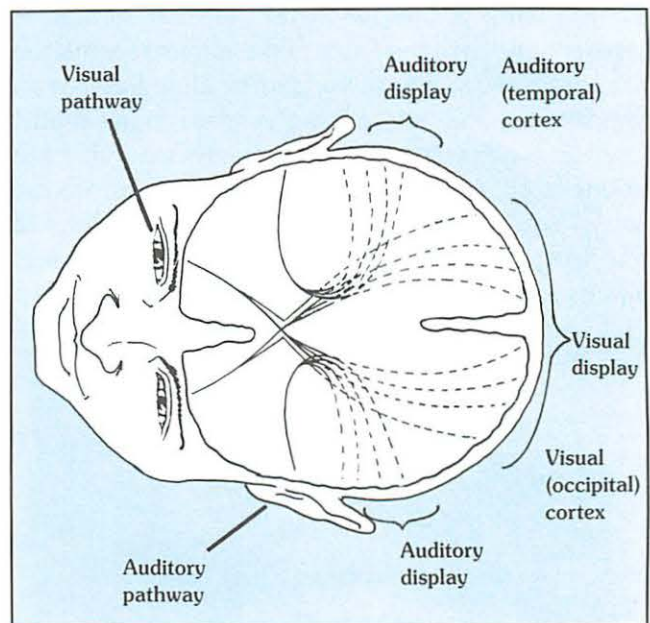
Deprived of incoming signals, a person will often create imaginary experiences to keep his mind busy.

4 The brain reviews and verifies events before accepting them as true.

Mental functions were once regarded as individual processes which took place in separate

parts of the brain. It is now clear, however, that perception is not isolated to one area of the mind. Every thought and impression is a joint effort of many sections of the brain, with each member making its own important contribution.

For example, sight is a complex process involving not only the visual cortex of the brain, but also the motor cortex, frontal lobes, reticular formation, and memory. In order to "see," the brain must search for information by moving the eyes back and forth, identify the important elements in the picture it sees, discern the differences between these important elements, compare them with memory, form a hypothesis about what it sees, and verify that hypothesis by checking it against what it expects to see.



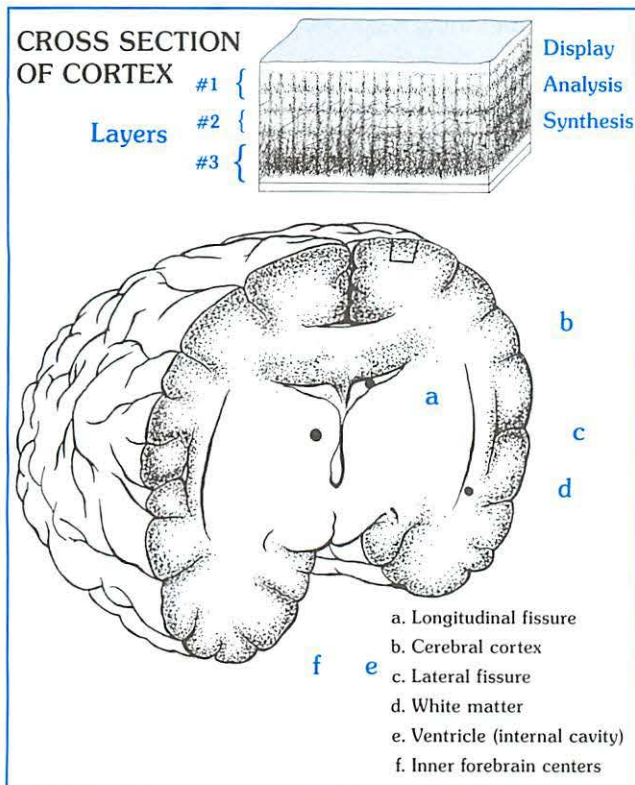
The visual cortex is like a television screen. It displays an electrical picture of what the eyes see across the surface of the brain.

To understand what is involved in the process of sight, a person must realize that the occipital (ock-SIH-pih-tal) lobe is made up of three distinct layers. The outer layer, called the *cortex*, is made up of an extremely large number of isolated neurons. Each neuron corresponds to a particular nerve cell in the retina of the eye. As the eye focuses on an object, it sends these individual signals to the visual cortex, which actually displays an electrical picture of what the eyes see across the surface of the brain.

Just under the surface of the cortex is a second layer of neurons. These neurons have fibers which connect each cell with countless others to form

an intricate network. The neurons analyze the picture on the cortex and identify the essential elements of the picture. They detect lines, shapes, and patterns which provide clues to the understanding of the picture.

These clues, in turn, stimulate a third layer of neurons lying just beneath the second layer. These cells synthesize the elements of the picture into an understandable whole. They formulate meaning and create an initial "guess" as to the significance of the picture. However, before the brain accepts this information, it compares the meaning with other parts of the picture and with what it has seen before.



The process of seeing also involves other areas of the brain, particularly the frontal lobes. The frontal lobes have extensive connections with both the reticular formation, the thalamus, and all the cortical zones which register perception from other senses. These connections review and verify what a person sees before accepting it as true. Past judgments are recalled and compared to the new input. If the new picture does not fit what the person expected to see, it is usually rejected and the brain automatically redirects the eyes to look for information which *does* fit.

Judgments provide the mind with a ready-made framework for verifying what a person sees, hears, feels, tastes, or smells. Unfortunately, once a person makes a judgment it is very difficult to

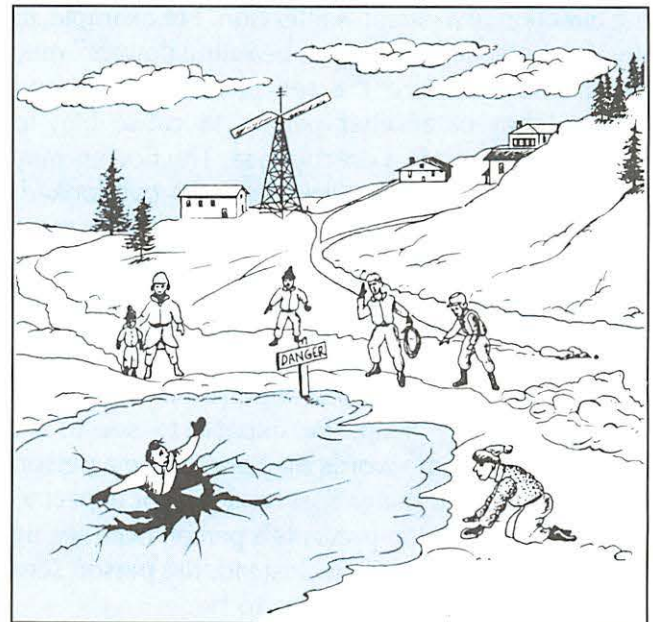
erase it or reconstruct it. Experiences which do not fit the framework are simply discarded or ignored, while experiences which *do* fit are accepted as true.

How does damage to the brain illustrate the blind spots which result from judging a neighbor?

The importance of verifying signals before accepting them is illustrated in patients whose brains have been damaged. Damage to the outer layer of the cortex results in blind spots. If a patient is unaware of his blind spots, he may jump to conclusions without knowing all the facts.

If however, a patient is aware of his blind spots, he is usually able to compensate for the damage by shifting his eyes back and forth. As the electrical picture moves across the visual cortex, healthy cells pick up the parts of the picture that the damaged cells miss.

The most surprising problems arise from damage to the innermost layer of the cortex and its connections to the frontal lobe. If these areas malfunction, a patient is unable to perceive his own errors. He jumps to wrong conclusions, failing to compare his impression to the facts.



A patient suffering from damage to the frontal lobes is often unaware of his own mistakes. If shown a picture of a man who has fallen through ice on a pond, he may see the danger sign and immediately conclude that the picture depicts a dangerous situation from his past, such as a busy highway or a confrontation with a wild animal. Once the patient picks up on a particular element of the picture, his eyes become fixed on that one element and do not move to other parts of the picture.

5 *The brain is easily influenced by a person's spoken and unspoken words.*

Researchers have discovered that the reticular formation and frontal lobes are especially influenced by language. This influence begins very early as a child's parents name and point to an object. By pointing to and naming an object, parents teach the child to associate the name with the object. The child also learns to direct his attention to the object and eventually to ignore other objects at the sound of the object's name.

The importance of words became apparent as researchers measured the cortical tone of various parts of the brain. They found that cortical tone, which is an indication of attention, changed in localized areas of the brain when a subject was shown different pictures or heard various sounds. However, if a subject was *told* there would be changes in the pictures or sounds, there were significant changes in cortical tone all over his brain.

It appears that the mere speaking or thinking of words can, in fact, influence both the intensity and the direction of a person's attention. For example, to say the sentence "I like those beautiful flowers" may sufficiently influence the reticular formation and frontal lobes of another person to cause him to notice the flowers in a nearby vase. The flowers may have been there all the time but were overlooked. Speaking the words actually preconditions the mind to search out and see what it wants to see.

In much the same way, expressing a judgment against a neighbor in words either spoken or implied can cause the brain of another person automatically to amplify those things he expects to see in his neighbor. The same words may also cause a person to overlook those things that he does not expect to see. Such a condition prevents a person from seeing his neighbor as he really is. Instead, the person sees his neighbor as he judges him to be.

Before the age of twelve, a child's frontal lobes are not fully mature, and they play much less of a role in censoring incoming information. This suggests that children under the age of twelve are less likely to be influenced by stereotypes. They see more objectively than do most adults. However, as frontal lobes mature, children are increasingly influenced by their own judgments they make about others.

PROJECT

Match the following statements with their Scriptural foundations. Write the number of the statement in the box next to the reference which best amplifies it.

1. A gift can blind our eyes to others' faults.
2. A whisperer can blind our eyes to good.
3. A word from a talebearer can wound the innermost parts of a friend.
4. A judgment reveals the guilt of one's own actions.
5. A remark of flattery or slander is foolishness.
6. A condemning neighbor overlooks his own faults.
7. An unyielding heart can cause a brother to stumble.
8. An attitude of love blinds our eyes to a multitude of sins, while an attitude of hatred opens our eyes to see conflict.
9. A slow ear and a quick tongue interfere with the righteousness of God.
10. Partiality toward those who are rich or influential is a product of evil judgments.
11. A spoken word of judgment is so powerful that it can misdirect our whole outlook toward others.

9. James 1:19-20

5. Proverbs 10:18

1. Deuteronomy 16:19

3. Proverbs 26:22

11. James 3:2-6

8. Proverbs 10:12

7. Romans 14:13-15

6. Proverbs 11:9

2. Proverbs 16:28

4. Romans 2:1

10. James 2:2-4



"Verily I say unto you, Whosoever shall not receive the kingdom of God as a little child, he shall not enter therein" (Mark 10:15).

Date completed _____ Evaluation _____